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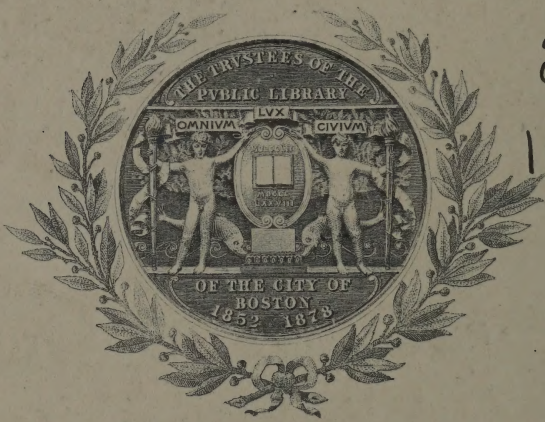


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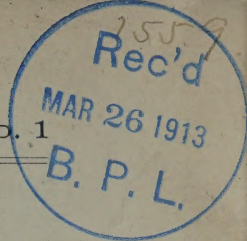
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1913

Vol. 2.

JANUARY, 1913

No. 1



MONTHLY BULLETIN

OF THE

HEALTH DEPARTMENT

OF THE

CITY OF BOSTON

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ORGANIZATION OF THE HEALTH DEPARTMENT

FRANCIS X. MAHONEY, M. D., *Chairman.*

P. H. MULLOWNEY, M. D. V.

F. H. SLACK, M. D., *Secretary.*

THE HEALTH DEPARTMENT
OF THE CITY OF BOSTON
HAS THE HONOR TO ANNOUNCE
THAT THE FOLLOWING ARE THE
MEMBERS OF THE HEALTH DEPARTMENT

FOR THE YEAR 1901

FRANCIS X. MAHONEY, M. D., Chairman.
P. H. MULLOWNEY, M. D. V., Secretary.
F. H. SLACK, M. D., Secretary.

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MONTHLY BULLETIN

OF THE

HEALTH DEPARTMENT OF THE CITY OF BOSTON.

All communications relating to this publication should be addressed to
BULLETIN OF THE HEALTH DEPARTMENT, 100 Summer St., Boston.

VOL. 2.

BOSTON, JANUARY, 1913.

No. 1.

THE REGISTRATION OF PULMONARY TUBERCULOSIS IN BOSTON.

BY DAVID D. BROUGH, M. D.

Medical Inspector, Boston Health Department.

The pioneer work on tuberculosis in Boston was done by private individuals and associations. What they have done touches every side of the tuberculosis question. It was chiefly due to their efforts that we have the present excellent system of state and municipal hospitals in Massachusetts. The change in the law by which tuberculosis was made an infectious disease, and by which, as in other infectious diseases, the expenses for its treatment were to be borne by the community of which the patient was a resident, was a great step forward. The consumptive is no longer regarded as a pauper and housed in the poorhouse, as he often was in the past.

Tuberculosis work has now in certain lines been transferred from private organizations and has become a part of municipal work. In Boston tuberculosis work is carried on by the Board of Health and the Boston Consumptives' Hospital Department, each entirely independent but acting in cooperation with each other. The Health Department receives the reports of the cases; the information in regard to the cases is obtained by the visiting nurses of the Consumptives' Hospital Out-Patient Department. The registration of tuberculosis is one of the important duties of the Health Department. Besides registration the Health Department is constantly doing other tuberculosis work.

First.—It furnishes free bacteriological examination of the sputum. It has stations in various sections of the city where outfits for the sputum examination can be obtained and whence the specimens can be sent to the laboratory free of expense.

Second.—The sanitary condition of every house where tuberculosis occurs is examined by an inspector of the Sanitary Division.

Third.—Every case where the house conditions are not approved by the visiting nurse is visited by a medical inspector from the Division of Communicable Diseases.

Fourth.—Every case that cannot be treated at home in a satisfactory manner, or may be a menace, is sent to the hospital. If the patient does not go willingly the power that is granted to the Health Department by law, of compelling the patient to go to the hospital, is judiciously exercised. No obstinate dangerous consumptive is allowed to stay at home. The homes of the city are now practically free of the advanced, careless, bedridden consumptive.

Fifth.—An examination of the condition of the children in the public schools, including an examination of the lungs for pulmonary disease, has been accomplished by the school physicians under the Division of Child Hygiene.

Sixth.—Disinfection is done by the department after every death or removal of a tubercular case.

Seventh.—The Board of Health has enforced the law against the spitting nuisance and obtained many convictions. It has placed notices in public places and conveyances warning against the dangerous habit.

Eighth.—Circulars regarding consumption are delivered to every person who is known to be suffering from the disease.

Compulsory notification of infectious diseases has been of slow development. Although smallpox has been required to be reported for over 100 years, the other diseases have been added only comparatively recently,—scarlet fever in 1877, diphtheria in 1878 and typhoid fever in 1881. Notification of tuberculosis was recommended by the International Medical Congresses at Paris in 1888 and 1893, and in the London Congress of 1901. Michigan in 1893 was the leader in the United States. On May 17, 1900, Boston began to require laryngeal and pulmonary tuberculosis to be reported. The Massachusetts State Board of Health, August 1, 1907, added tuberculosis to the list of reportable diseases.

The Boston Board of Health requires all forms of tuberculosis to be reported, laryngeal and pulmonary, and the various bone, glandular, skin and other kinds. There being a fairly distinct line between the different forms, the pulmonary and laryngeal cases are kept separate from the other forms. This

article is restricted to a consideration of pulmonary and laryngeal tuberculosis. From the commencement of registration of pulmonary and laryngeal tuberculosis all reported cases have been visited by some agent of the department. At first the visits on these cases were made by the school physicians connected with the Health Department.

The Consumptives' Hospital Department of the city was established in September, 1907. Since May, 1910, the home visits have been made by the nurses connected with the outpatient work of that department. This has simplified matters greatly and relieves the patients from any unnecessary visits. In the early tuberculosis work it was no uncommon occurrence for the tuberculosis patient to be visited by representatives of five or six different organizations or departments, all doing some work on the same subject.

The cause of pulmonary tuberculosis is infection from human cases. Efforts for the suppression of the disease must in the main be directed against the infected individuals. Infection from bovine sources, through the milk, is now regarded by the best authorities as responsible for only a portion of the glandular and abdominal tuberculosis in children, and possibly rarely for the pulmonary form.

What has Boston accomplished in the registration of tuberculosis? The registration began in May, 1900. The following is a summary of the work of 12 years and 7½ months:

Pulmonary and Laryngeal Tuberculosis.

YEAR.	Total Cases.	Deaths.	Cases only Reported at Time of Death.
1900 (7½ months).....	815	1,407	.....
1901.....	1,149	1,346	.....
1902.....	944	1,247	.....
1903.....	1,355	1,227	.....
1904.....	2,138	1,280	695
1905.....	2,184	1,224	605
1906.....	2,131	1,185	406
1907.....	2,623	1,138	481
1908.....	2,646	1,094	400
1909.....	2,904	1,065	320
1910.....	3,479	1,163	328
1911.....	3,137	1,067	62
1912.....	3,332	1,093	40

In January, 1910, I was able to estimate that we had about 70 per cent of all cases of pulmonary and laryngeal tuberculosis on our registry. January 1, 1913, there were apparently about 95 per cent of the cases reported and on our records, a distinct and gratifying improvement. In 1910 only three cities in the United States made a better showing. It would be interesting to know how the comparison stands at present.

The apparent increase for some years has been due to more vigorous efforts to get all the cases reported. The sudden increase in 1910 over 1909 was due to the cooperation of most of the various hospitals and sanatoria in this city and this state in this work. At our request they sent us the names of all the patients who were in the hospital with a Boston residence, and we continue weekly to receive these reports, both of the patients admitted and of those who are discharged to presumably live in Boston. The next important cause was the more stringent enforcement of the law requiring the reporting of tuberculosis as an infectious disease. Every case unreported until the time of death has been carefully investigated and a satisfactory explanation demanded. During the past two years the Board of Health has prosecuted five physicians for failing to report tuberculosis. Four were found guilty and fined \$50, and one was acquitted. These efforts have resulted in a great diminution of unreported cases. In 1910 there were 328, in 1912 only 40. These examples have been a warning to other physicians and more care is now exercised in reporting the cases. Physicians now realize that reporting tuberculosis is an obligation not to be neglected.

Unreported Cases.—There will probably always remain a certain number of cases which are only discovered to be tuberculosis at the time of death or as the result of autopsy findings. It is possible to reduce the number of unrecorded cases to a small number, but never perhaps obliterate them.

The reports of cases come about equally from the family physicians and the various hospitals and dispensaries in the city and state.

NUMBER OF PULMONARY AND LARYNGEAL CASES IN BOSTON.

In a chronic disease the Health Department has a different problem than in the ordinary acute infectious disease. The tuberculosis population is of an extremely migratory character, frequent in its changes of residence from one part of the city to another and its removal to other cities, states and countries. Many of the original reporting cards give addresses that are

found to be fictitious. At the second visit many cases are found to have moved away. Excluding 1,700 cases that are known to have left the city permanently, 4,800 were found to be at their last recorded address or in the various tuberculosis hospitals in Boston or Massachusetts; 2,300 supposed to be in the city could not be found at last recorded address. The unreported cases estimated to be in the city probably number 400.

Found and known at last visit	4,800
Reported but not found on last visit	2,300
Estimated never to have been reported	400
	<hr/> 7,500

This is the apparent number of reportable cases in the city January 1, 1913, based on a careful study of the cases carried on our registry. It would be interesting to know how long the average life of a consumptive is after infection. We have no definite means of obtaining this knowledge at present. We can, however, state definitely how long the cases have been on our registry from the time of the first report until death.

Of the 1,065 deaths in 1911

- 70.1 per cent died within one year after being reported.
- 21.7 per cent died one to two years after being reported.
- 3.9 per cent died two to three years after being reported.
- 1.0 per cent died three to four years after being reported.
- .7 per cent died four to five years after being reported.

In 1912 there were 1,093 deaths:

- 66.8 per cent died within one year after being reported.
- 17.2 per cent died one to two years after being reported.
- 11.7 per cent died two to three years after being reported.
- 1.7 per cent died three to four years after being reported.
- .9 per cent died four to five years after being reported.
- .9 per cent died five to six years after being reported.

It can be seen that the physicians are reporting cases earlier. Looking over the past reports in the years previous to 1909, the time between reporting and death was very much shorter than at present. There is still necessity for an earlier report of tubercular cases, both for the care of the individual and the safety of the community.

NATIONALITY OF THE TUBERCULOSIS POPULATION.

The detailed figures would consume too much space, so they have been reduced to a basis of percentages for the main nationalities. The percentages are based upon an analysis of about

4,000 cases. Generalization between consumption and race is a rather delicate affair. The nationality has been determined by the birthplace of the mother. In cases of mixed parentage, foreign and American, the mothers' nativity alone is taken. The following shows the chief elements in the tuberculosis population.

Parentage, all ages:

Ireland	35.4	Germany	2.6
United States	20.3	England	2.4
Canada	11.1	Scandinavian	2.0
Russia and Poland	8.8	Scotland	1.7
Italy	7.7		

The remainder is distributed among a dozen or more nationalities.

The position of the foreign-born alone shows:

Ireland	33.1	Scandinavian	4.0
Canada	17.7	Germany	3.3
Russia	15.9	England	2.7
Italy	12.3	Scotland	1.4

It is one of the sad features of tuberculosis cases that about 95 per cent are made up of adults, the most of these between the ages of fifteen and forty-five. Of the children, 84.4 are native-born; 15.6 foreign-born. The parentage of these children shows:

United States	27.2	Canada	12.6
Ireland	22.3	England	3.0
Russia	13.5	Scotland	1.5
Italy	12.9		

Of the whole tuberculosis population the foreign-born show about 44 per cent of the cases. The foreign-born tuberculosis population and their children make up nearly 80 per cent. The 1910 United States census reports approximately one-third of the population of Boston to be of foreign birth. It can be seen that tuberculosis is apparently more prevalent among them than amongst the native-born of foreign parentage or of the native-born of American parentage.

It apparently seems that as the foreign population becomes incorporated in the American population there is a slow but sure tendency for tuberculosis to diminish.

OCCUPATIONS.

In looking over the occupations one is impressed with the fact that tuberculosis is a disease of the ordinary working people. It is diffused throughout the ordinary vocations of life. There are more than 200 different occupations given by our

tuberculosis population. Reduced to percentages the following show the greatest amounts:

Housewives	28.0	Cooks	2.0
Laborers	10.0	Bartenders	1.3
Clerks and bookkeepers	8.5	Machinists	1.8
Students	4.5	Stonecutters (all sorts)	1.0
Teamsters and drivers	4.5	Carpenters	1.0
Tailors	3.0	Laundry	1.0
Waiters	3.0	Painters	1.5
Shoemakers and shoe shops	2.0		

In this list one is impressed with the large number of housewives. This, I believe, is the main source of infection. If we could stamp out tuberculosis in the home we could make great progress in reducing the amount of the disease. Every effort for improving the home conditions helps to diminish tuberculosis. In many of the occupations, as laborers, clerks, teamsters, etc., the terms are simply general and no definite conclusion could be arrived at until we know the specific kind of business they are employed in.

In any occupation showing considerable tuberculosis there may be other factors than simply the character of the work. For example, tailors present a rather high tuberculosis rate. On investigation I found that a great many tailors in Boston are Russian Hebrews. I went over 258 tuberculosis cases of Russians. These 258 persons represent 61 occupations, 88 are housewives and 42 tailors; no other business has more than seven in that group. The question immediately presents itself — is the tailoring business especially subject to tuberculosis, or is there a great deal of tuberculosis there because the Russian Hebrews are engaged in it?

In the laundry business we have a moderate amount of tuberculosis, but many of the laundries are conducted by Chinamen, whom we know are very prone to tuberculosis. Is the disease here due to the occupation or the race? These same questions can be applied to other occupations and would be an interesting study.

If certain occupations show a high tuberculosis rate on our registry there are certain vocations, each of which include a large number of individuals, that have a surprisingly low rate. These are clergymen, lawyers, physicians, merchants, bankers, brokers, nurses, policemen, firemen, motormen, conductors, and members of other smaller groups.

The registration of tuberculosis has shown constant progress since its start in 1900. There are, of course, a large number of cases reported that cannot be located, as seen in the 2,300 not

found cases. This is due to tuberculosis being a chronic infectious disease in persons whose liberty is not restricted, who carelessly or intentionally give incorrect addresses, and who frequently change their residence without leaving any information. A tuberculosis registry is practically remade every four years. If we follow all the reported cases for any year through a period of four years we find that 90 per cent disappear, due to deaths, removals and other causes. This proves how necessary is this constant, unobtrusive supervision of the cases after being reported. To make the work efficient hospital accommodations must be provided. Boston is fortunate at present in having a good registration, kept by the Board of Health, and an excellent and extremely satisfactory supervision of the cases by the visiting nurses of the Consumptives' Hospital, and ample facilities for the care of the necessary cases in the Boston Consumptives' Hospital, in the Massachusetts state hospitals under the control of the trustees of hospitals for consumptives, and in the various private institutions.

REGULATIONS FOR THE SALE AND CARE OF MILK.

BOSTON, January 8, 1913.

At a meeting of the Board of Health held this day, it was

Ordered, That all rules and regulations heretofore adopted by the Board of Health for the sale and care of milk be hereby repealed and abolished, and the following rules and regulations adopted by said Board, the same having been made by virtue of the provisions of chapter 448, Acts of 1912.

ARTICLE I.

SECTION 1. All persons in the City of Boston engaged in the production of milk for sale, or in the conveyance in carriages for the purpose of selling, delivering or distributing milk in said city, shall, annually, on the first day of May, or within thirty days thereafter, make written application to the Inspector of Milk, on forms prescribed by the Board of Health, for a license. All persons in the City of Boston before selling milk or offering it for sale in a store, booth, stand or market place, shall make written application to the Inspector of Milk, on forms prescribed by the Board of Health, for a license.

SECT. 2. No person in said city shall engage in the business of producing milk for sale, or in the sale or distribution of milk in the City of Boston, without a license so to do, under these regulations and such other conditions as the Board of Health may impose; said license to be revoked if the licensee fails to comply with the conditions of his license and the regulations of this Board.

SECT. 3. The conditions under which every cow is kept whose milk is produced within, or brought into the City of Boston for sale, delivery or

distribution, and the method of handling such milk at the place of production, or during the time of its transit, or while it is being mixed, placed in containers, held, stored, heated or otherwise processed prior to such sale, delivery or distribution in said city, shall be made known by the licensee, or dealer, to the Board of Health and in such detail as said Board may require; and no milk except that, the conditions of producing and the methods of handling which have been made known as aforesaid, and no milk which is not produced or handled in a manner satisfactory to the Board of Health, shall be brought into, kept, delivered, distributed, sold or offered for sale in said city.

SECT. 4. No milk shall be sold, offered for sale or distributed in the City of Boston which was drawn from cows within fifteen days before or five days after parturition, nor unless the cows from which it was derived have, within one year, been examined by a competent authority, and shown to be free from diseases dangerous to the public health.

SECT. 5. Every person having a license to sell, deliver or distribute milk in the City of Boston, shall keep a copy of the same constantly posted in a conspicuous place on his premises, and shall have his name, the number of his license and his place of business marked in plain, uncondensed Gothic letters, not less than one inch in height, on all vehicles used by him in the conveyance and sale of milk.

ARTICLE II.

SECTION 1. No milk kept for sale or distribution shall be stored in any portion of a building which is used for the stabling of horses, cows or other animals, or for the storing of manure, or in any room used in whole or in part for domestic or sleeping purposes, unless the storage room for milk is separated from other parts of the building to the satisfaction of the Board of Health.

SECT. 2. No person engaged in the business of producing milk for sale, or in the business of storing, selling or delivering milk in said city, shall store, cool, strain or mix said milk in any room which is occupied by horses, cows or other animals. All rooms in which milk is stored, cooled, strained or mixed, shall be provided with tight walls and floor and kept constantly clean. The walls and floors of said rooms shall be of such construction as to allow easy and thorough cleansing. The room or rooms aforesaid shall contain proper appliances for washing or sterilizing all utensils actually employed in the storage, mixing or cooling, sale or distribution of milk, and all such apparatus and utensils shall be washed with boiling water or sterilized by steam regularly after being so used.

SECT. 3. No urinal, water-closet or privy shall be located in the rooms called for in the preceding section, or so situated as to pollute the atmosphere of said rooms.

SECT. 4. All milk produced for the purpose of sale shall be strained and cooled as soon as it is drawn from the cow.

ARTICLE III.

SECTION 1. Milk kept for sale in any store, shop, restaurant, market, bakery, or other establishment, shall be stored in a covered cooler, box or refrigerator. No vessel containing milk for sale shall be allowed to stand outside said cooler, box or refrigerator, except while a sale of said milk is being made. Every such cooler, box or refrigerator, shall be properly drained and cared for, and shall be kept tightly closed, except during such intervals as are necessary for the introduction or removal of milk or ice,

and they shall be kept only in such locations and under such condition as shall be approved by the Board of Health.

ARTICLE IV.

SECTION 1. All cans, bottles or other vessels of any sort, used in the sale, delivery or distribution of milk shall be cleansed or sterilized before they are again used for the same purpose, and all wagons used in the conveyance of milk for sale or distribution shall be kept in a cleanly condition and free from offensive odors. No person shall use a milk vessel as a container for any other substance than milk.

ARTICLE V.

SECTION 1. Every person engaged in the production, storage, transportation, sale, delivery, or distribution of milk, immediately on the occurrence of any case or cases of infectious disease; either in himself or in his family, or amongst his employees or their immediate associates, or within the building or premises where milk is stored, sold or distributed, shall notify the Boston Board of Health, and at the same time shall suspend the sale and distribution of milk until authorized to resume the same by the said Board of Health. No vessels which have been handled by persons suffering from such diseases shall be used to hold or convey milk until they have been thoroughly sterilized.

ARTICLE VI.

SECTION 1. No person, by himself or by his servant or agent, or as the servant or agent of any other person, firm or corporation, shall in the City of Boston sell, exchange, or deliver or have in his custody or possession with intent to sell, exchange, or deliver, any milk, skimmed milk or cream which contains more than 500,000 bacteria per cubic centimeter, or which has a temperature higher than fifty degrees Fahrenheit.

ARTICLE VII.

SECTION 1. No person or corporation shall sell or offer, expose or keep for sale in any shop, store or other place, milk or cream, unless the same is sold or offered, exposed or kept for sale in tightly closed or capped bottles or receptacles. Nothing contained herein shall prevent the sale of milk or cream from cans, crocks, coolers or other receptacles in restaurants, hotels, barrooms, or at soda fountains, when the milk or cream is to be consumed in the restaurant or hotel by guests or patrons ordering the same.

SECT. 2. Every person or corporation engaged in the business of selling or delivering milk or cream shall, immediately upon receiving a written order from the Board of Health so to do, comply with any requirement of said board respecting the filling of milk and cream in bottles or receptacles, the manner and methods employed in such filling or the conditions and surroundings under which such filling is done and carried on. The filling of bottles or cans with milk or cream, for sale or delivery upon wagons or on any public or private way or in any place for which permission for such filling has not previously been obtained from the Board of Health, is prohibited.

SECT. 3. No person or corporation shall sell or offer, expose or keep for sale at retail milk or cream in the room or store where the same is put into bottles or receptacles.

ARTICLE VIII.

SECTION 1. Whoever tests milk or cream which is to be offered for sale in any form by tasting shall do so by means of a spoon or piece of wood,

paper, cardboard or other article, and such spoon, piece of wood, paper, cardboard, or other article shall not again be brought in contact with milk or cream intended for sale, or be used for testing milk or cream until after being thoroughly washed and sterilized; no person shall permit his hands, fingers, lips or tongue to come in contact with milk or cream intended for sale in any form. All persons engaged in the tasting, mixing or handling of milk or cream for sale in any form shall before engaging in such tasting, mixing or handling, thoroughly clean his hands and finger nails and keep them clean and dry during such tasting, mixing or handling. No person shall permit his hands while wet to remain or pass over any open vessel containing milk or cream intended for sale in any form. No person shall fill a jar, can or other receptacle with milk or cream while the aforesaid jar, can or other receptacle is held over an open vessel containing milk or cream intended for sale in any form. No person who has sore throat, diarrhea, or is suffering from any other disturbance of the bowels, or has symptoms of infectious or contagious disease, shall engage in the handling of milk or cream which is to be offered for sale or which is for sale.

ARTICLE IX.

SECTION 1. All persons having the possession or custody of bottles, cans or other receptacles used in the sale, delivery and transportation of milk, cream, skimmed milk or buttermilk, shall cause any such bottle, can or receptacle to be cleaned immediately upon emptying the same; and no person shall deliver, receive or have in his possession or custody any such bottle, can or receptacle so used which has not been cleansed as aforesaid.

ARTICLE X.

SECTION 1. No person shall expectorate or spit, except in receptacles provided for the purpose, in or upon any part of any room, vehicle, railroad car, railroad platform, or other place used for the sale, storage, handling or transportation of milk.

A true copy.

Attest:

F. H. SLACK, *Secretary*.

REGULATION FOR THE MANUFACTURE, SALE AND CARE OF ICE CREAM.

BOSTON, January 8, 1913.

At a meeting of the Board of Health held this day, it was

Ordered, That all rules and regulations heretofore adopted by the Board of Health for the manufacture, sale and care of ice cream be hereby repealed and abolished, and the following rules and regulations adopted by said Board, the same having been made by virtue of the provisions of chapter 448, Acts of 1912.

ARTICLE I.

SECTION 1. No ice cream shall be manufactured or stored in any portion of a building which is used for the stabling of horses, or other animals, or in any room used in whole or in part for domestic or sleeping purposes, unless the manufacturing and storage room for ice cream is separated from other parts of the building to the satisfaction of the Board of Health.

SECT. 2. All rooms in which ice cream is manufactured or stored shall be provided with tight walls and floors and kept constantly clean. The walls and floors of said rooms shall be of such construction as to permit rapid and thorough cleansing. The room or rooms aforesaid shall be equipped with appliances for washing or sterilizing all utensils employed in the mixing, freezing, storage, sale or distribution of ice cream, and all such utensils after use shall be thoroughly washed with boiling water, or sterilized by steam. Vessels used in the manufacture and sale of ice cream shall not be employed as containers for other substances than ice cream.

SECT. 3. All establishments in which ice cream is manufactured shall be equipped with facilities for the proper cleansing of the hands of operatives, and all persons immediately before engaging in the mixing of the ingredients entering into the composition of ice cream, or its subsequent freezing and handling, shall thoroughly wash his or her hands and keep them cleanly during such manufacture and handling. All persons shall be dressed in clean outer garments while engaged in the manufacture and handling of ice cream.

SECT. 4. No urinal, water-closet or privy shall be located in the rooms mentioned in the preceding section, or so situated as to pollute the atmosphere of said rooms.

SECT. 5. All vehicles used in the conveyance of ice cream for sale or distribution shall be kept in a cleanly condition and free from offensive odors.

ARTICLE II.

SECTION 1. Ice cream kept for sale in any shop, restaurant or other establishment, shall be stored in a covered box or refrigerator. Such box or refrigerator shall be properly drained and cared for, and shall be kept tightly closed, except during such intervals as are necessary for the introduction or removal of ice cream or ice, and they shall be kept only in such locations and under such conditions as shall be approved by the Board of Health.

ARTICLE III.

SECTION 1. Every person engaged in the manufacture, storage, transportation, sale or distribution of ice cream, immediately on the occurrence of any case or cases of infectious disease, either in himself or in his family, or amongst his employees, or within the building or premises where ice cream is manufactured, stored, sold or distributed, shall notify the Boston Board of Health and at the same time shall suspend the sale and distribution of ice cream until authorized to resume the same by the said Board of Health. No vessels which have been handled by persons suffering from such disease shall be used to hold or convey ice cream until they have been thoroughly sterilized.

ARTICLE IV.

SECTION 1. All cream, milk or skimmed milk, employed in the manufacture of ice cream, shall before use be kept at a temperature not higher than fifty degrees Fahrenheit.

SECT. 2. No old or melted ice cream, or ice cream returned to a manufacturer from whatever cause, shall again be used in the preparation of ice cream.

A true copy.

Attest:

F. H. SLACK, *Secretary*.

SUMMARY OF VITAL STATISTICS FOR THE MONTH OF JANUARY, 1913.

Boston had 1,130 deaths in January, 1913, compared with 1,097 for January of last year; and a death rate of 18.09 against 17.94 for January, 1912.

Deaths of nonresidents numbered 146 against 137 a year ago. Deducting deaths of nonresidents the corrected death rate for January, 1913, was 15.75 against 15.70 for January, 1912.

Of deaths from reportable diseases the principal decrease was diphtheria, 8, and the principal increases were scarlet fever, 11; tuberculosis, all forms, 7; whooping cough, 4, and cerebrospinal meningitis, 4.

Other important differences were as follows:

January, 1913, decreases compared with January, 1912:

Violent deaths	20
Heart disease and nephritis	13

January, 1913, increases compared with January, 1912:

Pneumonia and broncho-pneumonia	21
Apoplexy	8
Acute bronchitis	6
Cancer	5
Diarrhea and enteritis (under 2 years)	5
Appendicitis	5
Puerperal septicemia	4

Ward 26 had the lowest rate, 4.37, and Ward 4 the highest, 25.58.

There were 23 more deaths under 1 year than in January, 1912, 9 more under 5 years, and 8 more over 60. Total deaths under 1 year were 185, which is 15 more than the average number for January for the preceding 5 years.

Seventy-nine of these deaths were due to premature birth, congenital debility, malformations and other diseases peculiar to early infancy; 47 to pneumonia and broncho-pneumonia; 18 to diarrhea and enteritis; 16 to reportable diseases, and 25 to other causes.

Of these deaths under 1 year, Ward 6 had the largest number, 16, and Ward 24 came next with 13.

One hundred and sixteen were over 2 weeks old and 69 of these were bottle fed.

GENERAL STATISTICS.

Population, Ward Area, Persons to Acre, and Rates.

	Land Area in Acres.	Population, 1910 Census.	Persons to Acre of Land. (Using Census Population.)	Population, Estimated, July 1, 1913.†	STILLBIRTHS EXCLUDED.		
					Death Rates, 1912. (Population, Estimated.)†	Birth Rates, 1911. (Population, Estimated.)†	Death Rates, 1912, of Children Under One Year, Per 1,000 Births, 1911.
* Boston.....	27,674	686,092	24.8	735,399	16.16	25.99	119.35
Wards 1.....	1,188	29,676	24.9	32,439	13.05	24.90	104.58
2.....	357	28,812	80.7	30,676	17.11	33.37	120.81
3.....	332	15,339	46.2	15,667	15.29	26.84	106.02
4.....	301	13,294	44.1	13,808	18.02	25.50	148.26
5.....	207	12,811	61.9	12,914	16.69	24.28	118.59
6.....	293	35,758	122.0	39,492	16.18	48.81	100.33
7.....	394	14,913	37.9	14,483	19.98	26.57	94.39
8.....	171	32,430	189.6	33,479	12.07	33.21	70.64
9.....	186	26,427	141.5	29,214	15.13	27.40	106.24
10.....	394	25,320	64.3	26,277	11.82	10.51	114.81
11.....	663	27,444	41.4	30,738	9.69	14.22	63.73
12.....	235	24,294	103.4	25,948	14.94	14.57	181.82
13.....	611	21,561	35.3	21,501	17.24	31.11	117.91
14.....	405	23,584	58.2	24,527	14.44	24.14	115.92
15.....	277	21,216	76.6	21,803	14.80	20.25	119.82
16.....	564	25,633	45.6	28,033	12.75	24.23	110.42
17.....	460	26,426	57.4	27,793	15.46	25.65	117.22
18.....	220	22,735	103.3	23,133	17.08	25.08	99.30
19.....	760	31,714	41.7	33,332	13.77	22.77	111.41
20.....	1,716	55,720	32.5	64,723	12.95	20.33	†159.73
21.....	640	30,511	20.5	33,085	13.54	17.53	85.14
22.....	760	29,975	38.1	31,403	12.50	20.55	100.48
23.....	7,617	30,668	4.0	33,423	12.13	19.93	94.94
24.....	3,252	37,749	11.6	41,695	12.63	23.73	103.11
25.....	2,740	26,575	9.7	29,661	11.95	24.73	96.21
26.....	2,869	15,507	5.4	16,152	12.29	29.59	107.30

* Hyde Park was annexed to Boston January 1, 1912, and became Ward 26. Under "Boston," in the above table, Hyde Park statistics are included.

† Population estimated by arithmetical method, using the Censuses of 1905 and 1910.

‡ An infant asylum is located in this ward.

VITAL STATISTICS.

January. General Summary.

	1913.	1912.
Total deaths	1,130	1,097
Population, estimated*	735,399	720,031
Death rate per 1,000	18.09	17.94
Deaths of nonresidents	146	137
Corrected death rate†	15.75	15.70

* Population estimated by arithmetical method, using the Censuses of 1905 and 1910.

† Nonresidents not included.

January, 1913. Statement of Deaths.

Total number (stillbirths excluded)		1,130		NATIVITY.	
SEX.					
Males	594			United States	680
Females	536			Ireland	203
CONDITION.				England and Wales	33
Single	481			Scotland	5
Married	393			Germany	14
Widowed	244			Canada	90
Divorced	5			Italy	22
Unknown	7			Russia and Poland	43
COLOR.				Sweden and Norway	11
White	1,097			France	1
Black (negro or mixed)	31			Other countries	13
Chinese	1			Unknown	15
Japanese	1			NATIVITY OF MOTHERS.	
Deaths of children:				United States	299
Under one year	185			Ireland	368
Under two years	212			England and Wales	49
Under five years	250			Scotland	18
Stillbirths during the month,	60			Germany	25
				Canada	104
				Italy	70
				Russia and Poland	66
				Sweden and Norway	15
				France	2
				Other countries	16
				Unknown	98

VITAL STATISTICS.

January, 1913.

Mortality by

Abridged List Class Number.	CAUSES OF DEATH.	TOTALS.		Under 1 Year.	1 Year.	2 Years.	3 Years.	4 Years.	Under 5 Years.	5 to 9 Years.	10 to 14 Years.	15 to 19 Years.
		January, 1913.	January, 1912.									
	Total, all causes.....	(1913 1912)	1,130 1,097	185 162	27 39	19 16	13 16	6 8	250 241	23 21	13 11	16 18
1	Typhoid fever.....	4	5								1	
3	Malarial fever.....											
4	Smallpox.....											
5	Measles.....	9	8	4	2	1	1		8	1		
6	Scarlet fever.....	12	1		1	3	2	2	8	3		
7	Whooping cough.....	8	4	5		2	1		8			
8	Diphtheria and croup.....	13	21		3	1	1	1	6	5	1	
9	Influenza.....	6	6	1					1			
12	Other epidemic diseases.....	3	5	2					2			
13	Tuberculosis of the lungs.....	108	104	1	2	1			4	3	1	2
14	Tuberculous meningitis.....	17	11	4	4	2	3		13	1	1	1
15	Other forms of tuberculosis.....	4	7								2	
16	Cancer, malignant tumor.....	68	63		1				1			
17	Simple meningitis (except cerebro-spinal meningitis).....	7	5		2				2			
17a	Cerebro-spinal meningitis.....	6	2	2			1		3	1	1	
18	Apoplexy and softening of the brain.....	56	48							1		
19	Organic heart diseases.....	165	162							2	1	2
20	Acute bronchitis.....	16	10	7	1				8			
21	Chronic bronchitis.....	3	6									
22	Pneumonia (except broncho-pneumonia).....	124	113	18	3	4	2		27		1	3
22a	Broncho-pneumonia.....	62	52	29	4	3			36	1		
23	Other respiratory diseases.....	10	10					1	1			
24	Diseases of the stomach (cancer excepted).....	5	13									
25	Diarrhea and enteritis (under two years).....	20	15	18	2				20			
26	Appendicitis and typhlitis.....	13	8					1	1	1	1	2
27	Hernia, intestinal obstruction.....	8	6									
28	Cirrhosis of liver.....	4	8									
29	Bright's disease and nephritis.....	51	67	1				1	2	1		
30	Diseases of women (not cancer).....	10	5									
31	Puerperal septicemia.....	6	2								1	
32	Other puerperal diseases.....	9	4									1
33	Congenital debility and malformations.....	61	59	61					61			
34	Old age.....	4	4									
35	Violent deaths.....	57	77	1			2		3		2	
36	Suicide.....	8	11									
37	Other diseases.....	170	172	30	2	2			34	3		5
38	Ill-defined causes.....	3	3	1					1			

Of deaths of non-residents from typhoid fever, measles, scarlet fever and diphtheria

VITAL STATISTICS.

Cause and Age.

January, 1913.

20 to 24 Years.	25 to 29 Years.	30 to 34 Years.	35 to 39 Years.	40 to 44 Years.	45 to 49 Years.	50 to 54 Years.	55 to 59 Years.	60 to 64 Years.	65 to 69 Years.	70 to 74 Years.	75 to 79 Years.	80 to 84 Years.	85 to 89 Years.	90 Years and over.	SEX.		Abridged List Class Number.
															Males.	Females.	
30 25	58 33	44 62	67 64	68 61	81 65	61 81	72 75	77 72	72 70	68 80	51 58	46 37	23 11	10 11	594 586	536 511	
.....	1	1	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	3	1
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	3
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	4
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	4	5	5
.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	7	5	6
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	4	4	7
1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	8	5	8
.....	.....	.....	1	1	.....	.....	.....	1	1	1	.....	.....	.....	.....	2	4	9
.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	3	.....	12
5	19	15	15	16	7	8	6	3	3	.....	.....	1	.....	.....	67	41	13
.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	11	6	14
.....	.....	1	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	3	15
.....	2	.....	3	8	10	6	6	12	7	5	5	2	1	.....	33	35	16
1	.....	1	.....	.....	.....	1	1	.....	.....	.....	.....	1	.....	.....	5	2	17
.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	5	17a
.....	.....	.....	3	3	4	4	8	3	8	7	7	4	4	.....	24	32	18
4	6	6	5	9	11	12	19	26	19	15	11	13	2	2	76	89	19
.....	.....	.....	.....	.....	.....	.....	.....	1	1	.....	.....	.....	5	1	8	8	20
.....	1	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	1	.....	.....	1	2	21
2	6	2	8	7	11	6	7	7	9	9	8	9	.....	2	67	57	22
.....	.....	2	1	.....	1	1	2	2	2	4	4	4	1	1	30	32	22a
.....	.....	.....	3	1	3	.....	.....	.....	.....	1	1	.....	.....	.....	5	5	23
.....	1	.....	1	.....	.....	.....	.....	1	.....	.....	.....	1	.....	1	3	2	24
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	9	11	25
1	2	2	1	1	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	9	4	26
.....	.....	.....	1	1	.....	.....	1	2	2	.....	.....	1	.....	.....	4	4	27
.....	.....	.....	.....	1	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	2	2	28
1	5	1	.....	1	5	3	10	5	5	5	4	1	1	1	27	24	29
1	2	1	2	.....	1	1	.....	.....	1	1	.....	.....	.....	.....	.....	10	30
1	.....	3	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	6	31
5	1	.....	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	9	32
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	40	21	33
.....	.....	.....	.....	.....	.....	.....	.....	.....	1	1	1	.....	.....	1	.....	4	34
3	9	4	5	5	6	4	3	3	1	2	7	.....	.....	.....	41	16	35
2	.....	1	.....	.....	3	.....	.....	1	.....	1	.....	.....	.....	.....	7	1	36
3	1	4	12	14	16	11	9	10	12	15	3	8	9	1	93	77	37
.....	.....	.....	1	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	2	38

the following occurred among cases sent to Boston for treatment:—Measles, 1.

VITAL STATISTICS.

January, 1913.

Mortality by

Abridged List Class Number.	CAUSES OF DEATH.	Boston.	WARD RESIDENCE.										
			1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
	All causes.....	1,130	35	24	23	30	26	48	27	33	43	34	28
	Rates per 1,000 (Jan., 1913)	18.09	12.70	9.21	17.29	25.58	23.71	14.31	21.95	11.61	17.33	15.23	10.73
	population..... (Jan., 1912)	17.94	16.03	16.43	18.15	25.02	19.19	16.90	20.14	14.92	17.86	15.41	14.27
1	Typhoid fever.....	4			1				1				
3	Malarial fever.....												
4	Smallpox.....												
5	Measles.....	9						1			1		
6	Scarlet fever.....	12					1				2		
7	Whooping cough.....	8		1				1			2		
8	Diphtheria and croup.....	13		1				5					
9	Influenza.....	6											
12	Other epidemic diseases.....	3								1			
13	Tuberculosis of the lungs.....	108	4	2	1	5	2	4	5	2	2	2	1
14	Tuberculous meningitis.....	17		1				1		1	1		
15	Other forms of tuberculosis....	4										1	
16	Cancer, malignant tumor.....	68	3	3	3	2	2		3	4	1	2	2
17	Simple meningitis (except	7									1		
17a	cerebro-spinal meningitis).												
	Cerebro-spinal meningitis.....	6	1										
18	Apoplexy and softening of the	56	2	3		2	1		1	2	3		3
	brain.												
19	Organic heart diseases.....	165	6	3	4	4	3	5		3	3	5	11
20	Acute bronchitis.....	16					1	1	1		1		
21	Chronic bronchitis.....	3				1				1			
22	Pneumonia (except broncho-	124	8	1	4	3	4	7	3	3	7	3	3
	pneumonia).												
22a	Broncho-pneumonia.....	62	4	2	3	1		6	2	3	1	1	
23	Other respiratory diseases.....	10		1		1			1		2	1	
24	Diseases of the stomach (cancer	5	1			1			1				
	excepted).												
25	Diarrhea and enteritis (under	20				2		2		1			
	two years).												
26	Appendicitis and typhlitis.....	13	1					1			1	1	
27	Hernia, intestinal obstruction,	8										1	
28	Cirrhosis of liver.....	4			1						1		
29	Bright's disease and nephritis..	51	1		2	2	1	2	1	2		2	1
30	Diseases of women (not cancer),	10			1								
31	Puerperal septicemia.....	6										1	
32	Other puerperal diseases.....	9					1	1		1	1		
33	Congenital debility and mal-	61	1	2	2		1	2	2	1	2	3	
	formations.												
34	Old age.....	4	1									1	
35	Violent deaths.....	57		1	1	3	1	3	2	4	2	1	
36	Suicide.....	8							1				
37	Other diseases.....	170	2	3		3	7	6	3	4	9	9	7
38	Ill defined causes.....	3					1						
	Total deaths under one year..	185	2	5	4	3	2	16	4	8	4	6	1

VITAL STATISTICS.

Cause and Residence.

January, 1913.

WARD RESIDENCE.																Boston, Ward Unknown.	Nonresidents.	Unknown.	Abridged List Class Number
12.	13.	14.	15.	16.	17.	18.	19.	20.	21.	22.	23.	24.	25.	26.					
37	29	36	31	53	47	37	59	81	55	41	48	50	16	6	2	146	5	....
16.79	15.88	17.28	16.74	22.26	19.91	18.83	20.84	14.74	19.57	15.37	16.91	14.12	6.35	4.37	....	....	....	....
13.43	21.89	16.04	13.61	16.40	16.78	17.40	13.99	14.64	14.22	11.41	11.93	14.55	9.84	12.55	....	....	....	....
....	....	....	....	1	....	....	....	....	....	....	....	1	....	....	....	....	....	1
....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	3
....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	4
....	....	....	....	....	2	1	1	2	....	....	....	....	....	....	....	1	....	5
....	3	....	....	2	....	....	1	2	....	....	....	....	1	....	....	....	....	6
....	1	1	....	....	2	....	....	....	....	....	....	....	....	....	....	....	....	7
....	....	....	....	....	....	1	2	2	1	....	1	....	....	....	....	....	....	8
....	....	....	....	....	1	1	2	....	1	....	....	....	....	1	....	....	....	9
....	1	....	....	....	....	....	....	....	....	....	1	....	....	....	....	....	....	12
1	3	7	8	9	7	3	4	8	4	4	6	1	....	1	....	11	1	13
....	1	1	1	2	....	....	2	....	1	....	1	1	1	....	....	2	....	14
....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	2	....	15
3	1	1	1	6	....	....	3	3	2	2	1	2	....	....	....	18	....	16
1	....	....	....	1	1	....	....	....	....	1	1	....	....	....	....	1	....	17
....	....	....	....	....	....	....	....	1	....	....	....	1	....	....	....	3	....	17a
....	1	1	2	6	1	2	3	3	12	1	2	3	1	....	....	1	....	18
5	4	5	2	9	5	11	11	12	8	8	5	7	4	1	....	21	....	19
1	1	1	....	....	2	1	1	....	2	....	1	....	1	....	....	1	....	20
....	....	....	....	....	....	....	....	1	....	....	....	....	....	....	....	....	....	21
9	3	3	3	4	3	3	6	12	6	5	3	6	....	2	....	10	....	22
....	2	2	4	2	3	1	4	1	1	2	5	6	....	....	....	5	1	22a
....	1	....	....	....	....	1	....	....	....	....	....	....	....	....	....	2	....	23
....	....	....	....	1	....	....	....	1	....	....	....	....	....	....	....	....	....	24
1	2	1	....	1	....	....	....	4	1	....	....	1	1	....	....	3	....	25
....	....	....	....	....	1	....	....	1	....	....	1	....	....	....	....	6	....	26
....	1	....	....	....	....	....	....	2	1	....	....	1	....	....	....	2	....	27
....	....	....	....	....	1	....	....	....	....	1	....	....	....	....	....	....	....	28
6	1	3	1	2	3	1	2	4	2	4	....	4	....	....	....	4	....	29
....	....	....	1	1	....	....	2	2	1	....	1	....	....	....	....	1	....	30
....	....	....	....	....	....	....	....	....	....	1	1	1	....	....	....	2	....	31
....	....	....	....	....	....	....	....	1	....	....	....	....	2	....	....	2	....	32
2	....	4	....	2	1	3	5	2	2	6	4	5	1	....	....	7	1	33
....	....	....	1	....	....	....	1	....	....	....	....	....	....	....	....	....	....	34
3	2	1	2	....	4	2	1	5	....	1	3	2	9	....	2	10	1	35
....	....	....	....	....	....	....	1	1	....	....	1	....	....	....	....	4	....	36
5	1	4	5	4	10	6	7	11	10	5	9	8	3	1	....	27	1	37
....	....	....	....	....	....	....	....	....	....	....	1	....	1	....	....	....	....	38
3	7	9	5	3	6	7	10	12	5	8	11	13	4	1	....	25	1	....

VITAL STATISTICS.

January, 1913, Infant Mortality.

Detailed List Class Number.	CAUSES OF DEATH.	JANUARY TOTALS, UNDER 1 YEAR.		Under 1 Day.	1 to 2 Days.	2 to 3 Days.	3 Days to 1 Week.	1 to 2 Weeks.	2 to 3 Weeks.	3 Weeks to 1 Month.	1 to 2 Months.	2 to 3 Months.	3 to 6 Months.	6 to 9 Months.	9 to 12 Months.	AGED 2 WEEKS AND OVER.		Nonresidents.
		1913.	1912.													Breast Fed.	Bottle Fed.	
	Total.....	185	162	23	13	3	17	13	5	16	16	9	34	21	15	47	69	25
	Male.....	100	91	11	8	2	12	4	3	11	13	6	14	9	7	29	34	11
	Female.....	85	71	12	5	1	5	9	2	5	3	3	20	12	8	18	35	14
	White.....	180	162	20	13	3	17	12	5	16	16	9	34	20	15	47	69	25
	Colored.....	5		3				1						1			1	
1	Typhoid fever.....																	
5	Smallpox.....																	
6	Measles.....	4	1									1	1	1	1	1	3	
7	Scarlet fever.....																	
8	Whooping cough.....	5	4									1	2	2		3	2	
9	Diphtheria and croup.....		2															
10	Influenza.....	1											1			1		
14	Dysentery.....																	
18	Erysipelas.....	2	3							1	1					2		
19	Other epidemic diseases.....																	
20	Pus-infection and septicemia.....	2					1				1						1	
24	Tetanus.....																	
28	Tuberculosis of the lungs.....	1												1			1	
29	Acute miliary tuberculosis.....																	
30	Tuberculous meningitis.....	4	3										1	3		1	3	2
31 35	Other forms of tuberculosis.....																	
36	Rickets.....																	
37	Syphilis.....	8	3							3			4		1		8	3
38	Gonococcus infection.....																	
61	Simple meningitis.....		1															
61a	Cerebro-spinal fever.....	2											1		1		2	1
63a	Acute poliomyelitis.....																	
71	Convulsions.....		1															
76	Diseases of the ears.....																	
79	Organic diseases of the heart.....																	
89	Acute bronchitis.....	7	6						1		2	2		2		3	4	
91	Broncho-pneumonia.....	29	19					2	1	2	3		10	6	5	15	12	1
92	Pneumonia.....	18	14				1	1	2	2	1	1	5	2	3	10	6	3
93	Pleurisy.....																	
103	Other diseases of stomach.....		5															
104	Diarrhea and enteritis.....	18	12					1		1	3	3	6	2	2	6	11	3
108	Appendicitis and typhlitis.....																	

VITAL STATISTICS.

January, 1913, Infant Mortality.—*Concluded.*

Detailed List Class Number.	CAUSES OF DEATH.	JANUARY TOTALS, UNDER 1 YEAR.		Under 1 Day.	1 to 2 Days.	2 to 3 Days.	3 Days to 1 Week.	1 to 2 Weeks.	2 to 3 Weeks.	3 Weeks to 1 Month.	1 to 2 Months.	2 to 3 Months.	3 to 6 Months.	6 to 9 Months.	9 to 12 Months.	AGED 2 WEEKS AND OVER.		Nonresidents.
		1913.	1912.													Breast Fed.	Bottle Fed.	
109	Hérnias,intestinal obstruction,.....		1															
117	Simple peritonitis.....																	
119	Acute nephritis.....	1	1										1			1		
143	Furuncle.....																	
144	Acute abscess.....																	
145	Other diseases of skin, etc.....																	
150a	Hydrocephalus.....	1													1	1		
b	Congenital malformations of heart.....	11	10	1	2	1	4	1	1	1							3	2
c	Other malformations.....	4	3			1		1		1		1		1			2	
151a	Premature birth.....	35	32	12	8	1	4	5		4	1					1	4	4
b	Congenital debility.....	10	12		1		3	1		1	1	1		1	1	2	3	1
152a	Injuries at birth.....	8	12	4	1		3											1
b	Other causes peculiar to early infancy.....	10	5	5	1		1	1		1	1						2	4
167	Burns (conflagrations excepted).....																	
168	Absorption of deleterious gases,.....	1	1	1														
172	Traumatism by fall.....																	
182	Homicide.....																	
184																		
187	Ill-defined diseases.....	1						1										
189	Other causes.....	2	11										1	1			2	
	Breast fed *.....	47	37						3	6	6	3	15	6	8	47		3
	Bottle fed *.....	69	63						2	10	10	6	19	15	7		69	13
	Nonresidents.....	25	15	5			3	1		4	2	1	5	3	1	3	13	25

* Aged two weeks and over.

Additional Deaths for Other Months.

Sept., 1912.—1 male; other forms of mental alienation; white; aged 42 years; single; residence Ward 3; birthplace unknown; birthplace of mother unknown.

Oct., 1912.—1 male; alcoholism; white; aged 36; married; residence Ward 7; born in Ireland; mother born in Ireland.

1 male; prematurity; white; aged 1 day minus; single; residence Ward 7; born in United States; mother born in Italy.

1 male; prematurity; white; aged 1 day minus; single; residence Ward 17; born in United States; mother born in Canada.

1 male; suicide by asphyxia; white; aged 84 years; widower; residence Ward 7; born in United States; birthplace of mother unknown.

Nov., 1912.—1 male; accidental drowning; white; aged 30 years; condition unknown; residence unknown; birthplace unknown; birthplace of mother unknown.

Dec., 1912.—1 male; pneumonia; white; aged 52 years; single; residence Ward 5; born in Scandinavia; birthplace of mother unknown.

1 male; prematurity; white; aged 1 day minus; single; residence Ward 12; born in United States; mother born in Canada.

1 male; prematurity; white; aged 1 day minus; single; residence Ward 10; born in United States; mother born in United States.

1 male; absorption of deleterious gases; white; aged 45 years; condition unknown; birthplace unknown; birthplace of mother unknown.

1 female; burns (conflagration excepted); white; aged 42 years; married; residence Ward 7; born in Ireland; birthplace of mother unknown.

1 female; alcoholism; white; aged 55 years; widow; residence Ward 20; birthplace unknown; birthplace of mother unknown.

DIVISION OF COMMUNICABLE DISEASES, JANUARY, 1913.

Medical Inspectors.

New cases visited:

Diphtheria:

a. Isolation	115
b. Diagnosis	9

Scarlet fever:

a. Isolation	192
b. Diagnosis	21
c. Release	76

Typhoid fever 18

Variola 1

Measles:

a. Isolation	23
b. Diagnosis	6

Epidemic cerebro-spinal meningitis 2

Varicella:

a. Isolation	0
b. Diagnosis	16

Ophthalmia neonatorum 6

Tuberculosis 35

Deaths investigated 16

Nurses.

New cases visited:

Diphtheria	175
Scarlet fever	202
Typhoid fever	22
Whooping cough	125
Ophthalmia neonatorum	106
Mumps	63
Measles	616
Varicella	110
Malaria	1
Cerebro-spinal meningitis	2

Old cases visited:

Diphtheria	218
Scarlet fever	744
Typhoid fever	35
Poliomyelitis	1

Whooping cough	98
Ophthalmia neonatorum	290
Mumps	7
Measles	546
Varicella	107
Cerebro-spinal meningitis	1
Release cultures taken for diphtheria	96
Vaccinations performed	5
Certificates granted	7

Forcible Removals.

Tuberculosis	1
Diphtheria	2
Scarlet fever	2

Disinfections.

Diphtheria	176
Scarlet fever	163
Phthisis	192
Small pox	1
Infected bedding, etc.	1 lot
Infected books, etc.	4 lots
Infected clothing, etc.	2 lots
Infected carriages	3

DIVISION OF

January, 1913. Cases Reported.

WARDS.	Anterior Poliomyelitis.	Actinomycosis.	Asiatic Cholera.	Bubonic Plague.	Cerebro-spinal Meningitis.	Diphtheria.	Glanders.	Leprosy.	Malaria.	Malignant Pustule.	Measles.	Mumps.	Ophthalmia Neonatorum.
1.....					1	10					3	...	2
2.....						8					3	7	5
3.....						3					3	2	4
4.....						4					12	3	3
5.....						6					3	2	...
6.....						17					25	28	14
7.....						4					28	...	5
8.....						13				1	73	4	9
9.....						10					42	...	10
10.....						3					13	...	2
11.....						4					14	7	4
12.....						12					37	1	5
13.....						4					22	3	10
14.....						6					7	3	6
15.....						1					16	...	4
16.....						6					30	2	2
17.....						5					70	1	3
18.....						11					58	...	4
19.....						12					58	1	5
20.....					1	11					51	1	8
21.....						8					39	1	4
22.....						8					18	4	2
23.....						2					18	3	1
24.....						10					29	3	2
25.....						2			1		4	1	2
26.....						2					2	...	1
Total.....					2	182			1	1	678	77	117
Unknown.....											2	...	...
Nonresidents.....					3	15					9	...	...
Grand total.....					5	197			1	1	689	77	117
Corresponding month last year..					3	183			1		517	17	209

Included in the Nonresidents were the following cases, brought to

COMMUNICABLE DISEASES.

Cases Reported.

January, 1913.

Scarlet Fever.	Smallpox.	Tetanus.	Trachoma.	Trichinosis.	Tuberculosis (Pulmonary and Miliary).	Tuberculosis (Other Forms).	Typhoid Fever.	Typhus Fever.	Varicella.	Whooping Cough.	Yellow Fever.	WARDS.
8	6	1	1	...	25	12	...	1
8	1	...	...	...	13	1	1	...	8	5	...	2
3	5	...	1	...	3	2	...	3
8	9	...	...	...	6	...	...	4
...	6	...	...	...	2	...	...	5
5	14	1	3	...	7	6	...	6
...	8	...	1	...	1	2	...	7
5	1	...	16	2	...	...	7	4	...	8
6	23	1	...	...	13	8	...	9
6	10	1	2	...	6	...	...	10
6	4	...	...	...	23	...	...	11
7	1	...	16	...	2	...	4	9	...	12
8	10	1	1	...	4	14	...	13
5	1	...	6	1	1	...	3	18	...	14
6	4	2	1	...	10	23	...	15
7	9	2	2	...	4	8	...	16
17	11	...	...	...	11	13	...	17
5	6	...	...	...	4	...	...	18
5	13	2	1	...	6	7	...	19
26	2	...	...	...	28	23	...	20
13	8	...	1	...	12	1	...	21
6	8	1	...	...	4	...	...	22
21	6	2	1	...	7	2	...	23
10	17	1	3	...	13	8	...	24
16	4	1	...	...	10	18	...	25
3	2	...	...	...	5	2	...	26
210	1	...	3	...	236	20	22	...	226	185	...	Total
...	1	...	...	...	...	...	...	Unknown
19	2	...	24	3	...	...	...	...	...	Nonresidents
229	1	...	5	...	260	23	22	...	226	185	...	Grand total
127	3	1	6	...	220	14	23	...	226	123	...	Corresponding month last year.

Boston for treatment: Measles 5; scarlet fever, 9; diphtheria, 14.

DIVISION OF CHILD HYGIENE.— JANUARY, 1913.

1. Medical Inspection of Schools.

Number inspections made	18,399
Number physical examinations made	15,463
Number visits made to homes	173

There were 2,229 pupils excluded from schools during this month on account of contagious diseases, as follows:

Diphtheria	7	Syphilis	1
Scarlet fever	5	Pediculosis	1,176
Measles	22	Trachoma	5
German measles	2	Acute or purulent conjunctivitis	34
Chicken pox	31	Ringworm	48
Whooping cough	7	Scabies	52
Mumps	32	Impetigo	106
Pulmonary tuberculosis	5	Favus	4
Acute tonsilitis	114	Miscellaneous	559
Influenza	18		
Gonorrhea	1		

There were 19,937 cases of noncontagious disease found during the month, subdivided as follows:

Diseases of oral and respiratory tract	6,856
Diseases of eye	594
Diseases of ear	176
Diseases of skin	755
Dental caries	5,213
Miscellaneous diseases	6,343

2. Physical Examination of Licensed Minors.

There were 412 children between the ages of 14 and 16 years examined during the month. One hundred and twenty-nine were found to be without defects and 283 with defects as follows:

Hearing	2	Cervical glands	25
Eyesight	45	Orthopedic defects	27
Nasal breathing	19	Cardiac disease	12
Hypertrophied tonsils	31	Skin	1
Defective teeth	161	Miscellaneous	46

Certificates were refused at this time to thirteen applicants.

3. Pre-Natal and Post-Natal Work.

Pre-Natal.

Number cases	47	Number babies died	2
Number visits	82	Number babies breast fed	11
Number babies born	13		

The following defective conditions were noted:

Varicose veins	1	Miscarriage	1
Edema	2		

Mothers attended as follows:

Family physician	5	Midwife	1
Hospital	7		

Post-Natal.

Number cases	1,138	Bottle-fed babies	57
Number visits	2,998	Both feedings	46
Breast-fed babies	1,035		

Defective Conditions Noted.

Otitis media	14	Orthopedic defects	1
Improper feeding	39	Umbilical hernia	5
Ophthalmia	18	Measles	2
Skin disease	10	Whooping cough	4
Cervical abscess	3	Chicken pox	2
Cervical glands	4		

BACTERIOLOGICAL LABORATORY.

DIPHTHERIA:		GONORRHEAL OPHTHALMIA:	
Positive for diagnosis	142	Positive	12
Positive for release	60	Negative	47
Negative for diagnosis	1,481	Unsatisfactory	0— 59
Negative for release	199	OTHER EXAMINATIONS:	
"No growth" cultures	13— 1,895	*Positive	9
TUBERCULOSIS:		Negative	34
Positive	84	Unsatisfactory	0— 43
Negative	381	BACTERIOLOGICAL MILK	
Unsatisfactory	0— 465	EXAMINATIONS	666— 666
TYPHOID:		Total	3,464 3,464
Positive	13	SPECIAL WORK:	
Negative	103	Longevity of tubercle bacilli in cow feces.	
Atypical	1	Bacterial examination of water.	
Unsatisfactory	3— 120		
GONORRHEA:			
Positive	52		
Negative	164		
Unsatisfactory	0— 216		

* K-L Vir. Organisms, malaria, G-U. T. B., paratyphoid, typhoid urines, anthrax, smears for T. B., leprosy-tissues and smear.

INSPECTION OF MILK, VINEGAR, ETC.

Examination as to Statute Requirements.

Samples examined, milk from stores	708
" " milk from wagons	674
" " milk brought in by citizens	31
" " milk for bacteriological examination	660
" " vinegar	73
" " butter and cheese	191
" " condensed milk	2
Total samples	2,339

INSPECTED AT BRIGHTON ABATTOIR.

Cattle inspected	295	Cattle condemned (2 and parts),	2,052 lbs.
Calves inspected	628	Calves condemned (5)	165 lbs.
Sheep inspected	2	Sheep condemned	— lbs.
Swine inspected	7,138	Swine condemned (5 and parts),	3,453 lbs.

INSPECTION OF PROVISIONS.—ARTICLES CONDEMNED.

Meats.		Miscellaneous.	
Veal (immature)	786 lbs.	Vegetables (decayed)	5 bush.
Mutton (tainted)	5 lbs.		
Beef (tainted)	943 lbs.		
Pork (tainted)	56 lbs.		
Poultry (tainted)	478 lbs.		
Veal (tainted)	15 lbs.		
Deer meat (tainted)	43 lbs.		

SANITARY INSPECTION DIVISION.

New reports	3,244
Reinspections	9,920
New tenement house reports	750
Nuisances reported	4,947
Legal notices	376
Court cases	7
Fines	\$130
Tenements vacated	5
Milk applications approved	113
Stable permit granted	3
Stable permits withheld	3
Stable hearings	7
Stable permit refused	1
Dump permits	18
Dump permit revoked	1

QUARANTINE.

Vessels inspected at quarantine	63
Total immigrants arriving in Boston	2,311

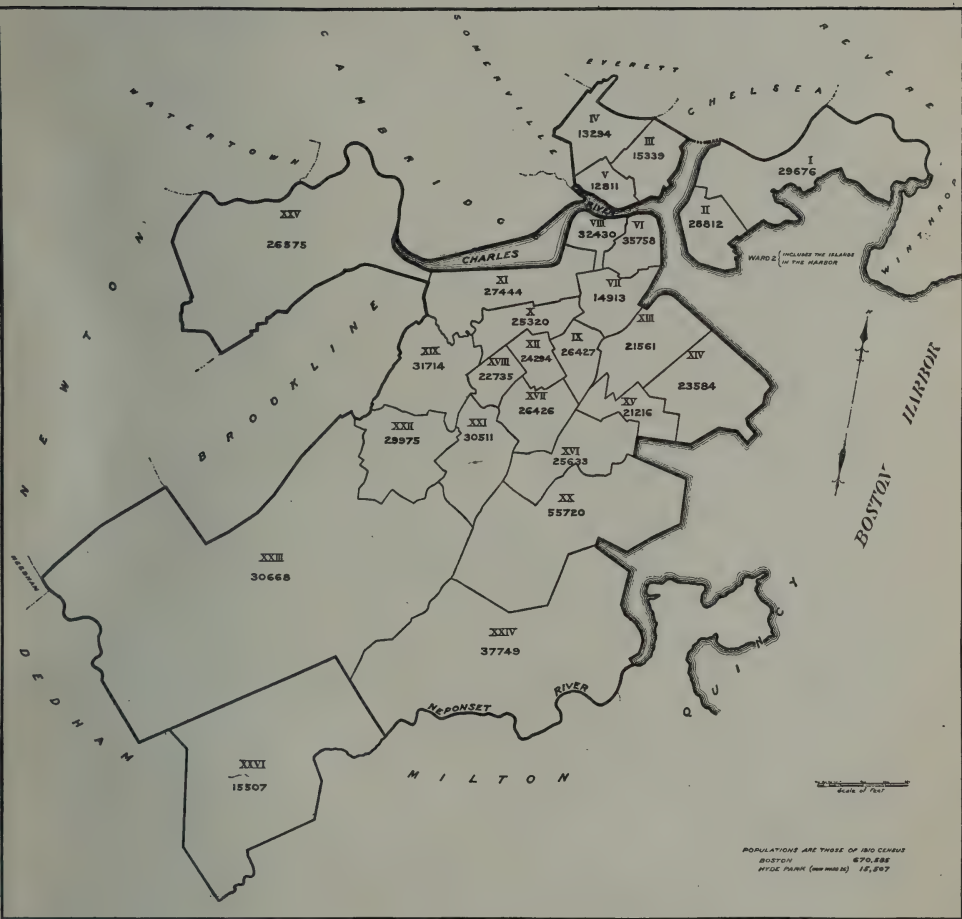
MONTHLY METEOROLOGICAL SUMMARY.
Taken at Weather Bureau, Boston, January, 1913.

DAY.	TEMPERATURE, DEGREES FAHRENHEIT.			Relative Humidity.	Daily Precipitation.	Actual Hours Sun- shine.	WIND.		
	Maximum.	Minimum.	Mean.				Average Hourly Velocity. (Miles.)	Maximum Velocity. (Miles.)	Prevailing Direction.
1.....	52	37	44	68	.01	7.7	10.5	24	W.
2.....	51	34	42	76	0	7.4	6.8	16	S. W.
3.....	62	35	48	88	.55	0	20.0	44	S., S. W.
4.....	42	34	38	52	T	6.9	27.7	48	W.
5.....	41	32	36	50	0	9.2	10.6	20	W.
6.....	62	34	48	72	T	1.9	9.2	22	S. W.
7.....	55	32	44	90	.15	0	15.5	31	N. E.
8.....	39	17	28	83	.87	0	12.2	36	N. W.
9.....	24	13	18	46	0	9.3	13.5	27	N. W.
10.....	43	22	32	78	0	7.1	13.2	29	S. W.
11.....	49	38	44	89	.12	.8	9.0	15	S. W.
12.....	61	28	44	72	.07	0	19.2	36	S. W.
13.....	28	15	22	53	0	6.5	9.9	21	N.
14.....	32	20	26	73	0	7.4	7.2	12	N. W.
15.....	44	29	36	76	T	2.8	13.5	20	S. W.
16.....	50	42	46	76	0	0	9.9	20	W.
17.....	59	41	50	90	.10	2.3	10.2	22	S. W.
18.....	56	46	51	88	T	0	12.4	35	S. W.
19.....	47	34	40	57	0	9.6	14.2	37	W.
20.....	49	31	40	80	0	7.3	9.0	21	S.
21.....	59	27	43	76	.24	3.6	17.3	34	N. W.
22.....	41	26	34	58	0	9.3	7.9	16	W.
23.....	53	32	42	76	.13	0	12.7	26	S.
24.....	52	42	48	62	0	2.4	8.0	14	W.
25.....	48	35	42	64	0	9.8	7.9	19	W.
26.....	54	34	44	68	0	4.8	11.8	30	S. W.
27.....	51	25	38	54	T	0	13.8	21	S. W.
28.....	36	24	30	46	0	9.9	9.2	20	W.
29.....	36	18	27	68	.06	1.3	11.6	17	N., S. E.
30.....	48	35	42	86	T	5.6	10.0	17	S. W.
31.....	62	39	50	84	.08	8.4	18.0	39	S. W.
Totals.....	—	—	—	—	2.38	141.3	—	—	—
Means.....	47.9	30.7	39.2	70.9	0.08	48%	12.3	4th	S. W.

Latitude 42 degrees 21 minutes.

Longitude 71 degrees 4 minutes.

BOSTON WARD MAP.



MONTHLY BULLETIN

OF THE

HEALTH DEPARTMENT

OF THE

CITY OF BOSTON



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ORGANIZATION OF THE HEALTH DEPARTMENT

FRANCIS X. MAHONEY, M. D., *Chairman.*

P. H. MULLOWNEY, M. D. V.

F. H. SLACK, M. D., *Secretary.*



MONTHLY BULLETIN

OF THE

HEALTH DEPARTMENT OF THE CITY OF BOSTON.

All communications relating to this publication should be addressed to
BULLETIN OF THE HEALTH DEPARTMENT, 100 Summer St., Boston.

VOL. 2.

BOSTON, FEBRUARY, 1913.

NO. 2.

MANURE AND ITS RELATION TO FLY BREEDING.

After scientific investigation by several professors connected with Harvard University and with other institutions throughout the country, it has been decided that the stable fly (*Stomoxys calcitrans*) is very apt to be a carrier of the organism which creates infantile paralysis. Directly after the announcement of this theory, the Board of Health of the City of Boston caused an investigation to be made, covering all of the principal cities of the United States, with regard to the methods generally employed in handling, storing and transporting manure and stable refuse. The Board found that many cities are without any regulations covering this problem. In several of them the collection and disposition of manure is performed by the municipality itself, a charge of so much per head for each horse is levied, and collections of the material are made at frequent intervals. In other cities the collection is let out by contract to the lowest bidder, after proposals have been received, and in a few cities the work is done under contract between the owners or occupants of the stables and private contractors, the latter charging so much per animal or so much per week.

In a number of cities permits are issued by the health authorities covering the transportation of manure, these permits stipulating the character of vehicle to be used and the manner in which the transporting is to be done. The maintenance of manure dumps in suitable locations is also permitted under license in some cities; these dumps are located either on the waterfront or in isolated sections close to railroad tracks.

After carefully reviewing the rules and regulations of the different cities, the Board adopted the following, which is now effective, having been publicly advertised:

Boston, February 17, 1913.

At a meeting of the Board of Health held this day, it was

Ordered, That all regulations heretofore adopted by the Board of Health respecting the handling, storing and transportation of manure, excrement of domestic animals and stable refuse be hereby repealed and abolished, and the following regulations adopted by said Board:

WHEREAS, In the opinion of the Board of Health of the City of Boston, manure, excrement of domestic animals and stable refuse (hereinafter termed "substances") in said city are a nuisance, source of filth and cause of sickness; it is therefore ordered:

First.— That no person having control of any premises in the City of Boston shall keep in, or permit to remain therein, or in or on any premises adjacent thereto, such substances, unless stored in tightly covered metallic cans or in vehicles constructed in a manner approved by the Board of Health.

Second.— All receptacles used for storing such substances shall be kept clean to the satisfaction of the Board of Health.

Third.— All such substances which accumulate on any premises shall be removed within forty-eight hours from the time of accumulation; and in specific cases as much oftener as the Board of Health shall order.

Fourth.— No can or vehicle containing such substances shall be placed in or allowed to stand in any public way.

Fifth.— Such substances shall be removed only in vehicles holding a permit to do so issued by the Board of Health, and the removal and transportation of such substances shall be done in accordance with the terms of such permit and not otherwise. Such vehicles shall be of a construction approved by said Board. Vehicles holding such permit shall be loaded within the building from which the substances are being removed, and not upon the street or sidewalk, and the substances shall be removed from such building in a manner not in any way offensive or so as to cause any nuisance.

Sixth.— All such substances, when transported through the streets, must be covered and secured so that no part of the same will fall or drip on the streets, and so as to prevent the escape of offensive odors.

Seventh.— Such substances shall not be unloaded or deposited within the city limits, except upon the conditions of a permit from the Board of Health. This shall be done only in such places as shall be approved by said Board, and in accordance with a permit from said Board for such unloading or depositing which shall have previously been granted by said Board.

Eighth.— No manure pit shall hereafter be maintained in the City of Boston.

A true copy.

Attest:

S. L. MALONEY, *Acting Secretary*.

It has been estimated after competent investigation that about 75 per cent of the breeding of flies is done in stable manure, the other 25 per cent largely in garbage barrels, garbage heaps and damp places, where dead leaves, etc., have accumulated. It will therefore be readily appreciated that it is the duty of boards of health to make every effort to prevent, in all reason-

able ways, the propagation of these insects, and in connection with the work that is to be done by the Health Department it has been deemed advisable to have a complete card index and report made upon the condition of every stable in the City of Boston. After these reports are available, it is the intention of the Board to compel a rigid observance of the provisions of this new regulation, and it will insist that manure in the different stables throughout the city be not stored or kept on the premises for a period of over forty-eight hours. The owners or occupants of all manure dumps or storage bins will be compelled to apply for and receive a license before they can maintain such places, and the licensees will be compelled to maintain their establishments in a manner entirely satisfactory to the Board.

In addition to the handling and disposal of manure, the lighting, ventilation, drainage and proper occupancy of stables in this city will be thoroughly investigated, and if any defects are found to exist in them it is the intention of the Board to have suitable repairs made by the owners or occupants.

The Board of Health requests the cooperation of all citizens in this general effort that is to be made toward the abolition of the fly nuisance, and it pledges its best efforts and all the facilities at its command to this very important work of stamping out a probable source of serious disease infection.

REGULATION FOR THE COVERING OF FOOD STUFFS.

BOSTON, February 12, 1913.

At a meeting of the Board of Health held this day, it was

Ordered, That the following regulations be adopted, the same having been made by virtue of the provisions of Acts of 1912, chapter 448:

SECTION 1. It is hereby ordered that, except during the process of sale or while in the act of loading or unloading vehicles, no cut meat, fish, shucked shell fish, dried or preserved fruits, dates, figs, cut fruits, cut melons, cracked nuts, nut meats, popped corn, candies, confectionery or bakers' products, which are intended for sale for human food, shall be conveyed from place to place, or kept in an open window or doorway, or kept outside of a building or in any public or private way of the City of Boston, unless so covered with clean material and so placed as to be protected from dust, flies and animals.

SECT. 2. Every person being the occupant or lessee of any room, stall, building or other place, and every person being the owner or person in charge of any stand, case, rack, bench, pushcart or other vehicle, where or from which human food is kept, stored, sold or offered for sale, shall

maintain such room, stall, building or other place, stand, case, rack, bench, pushcart or other vehicle and its appurtenances in a clean and wholesome condition.

SECT. 3. All persons while engaged in the handling of articles of food in such room, stall, building or other place shall wear clean outer garments, and shall be free from contagious or infectious disease.

SECT. 4. No room in which articles of food are prepared, kept, stored, sold, or offered for sale, shall be used for domestic purposes or open directly into any room so used, unless the conditions of such room are approved by the Board of Health. In no such room shall there be a water-closet unless the same is approved by the Board of Health. All shops or stores used for the sale of articles of food shall be equipped with such lavatory accommodations as the Board of Health may order and approve.

SECT. 5. The use of unclean paper for the wrapping of articles of food is prohibited.

SECT. 6. Every pedler of foodstuffs from wagons or carts, in addition to the clean covering provided for in this regulation, shall keep in his wagon or cart a water-tight and sufficient receptacle for the wastes of his business, and such wastes shall be so disposed of as not to cause a nuisance.

A true copy.

Attest:

S. L. MALONEY,
Acting Secretary.

SUMMARY OF VITAL STATISTICS FOR THE MONTH OF FEBRUARY, 1913.

Boston had 990 deaths in February 1913, compared with 1,056 for February of last year; and a death rate of 17.55 against 18.46 for February, 1912.

Deaths of nonresidents numbered 116 against 111 a year ago. Deducting deaths of nonresidents the corrected death rate for February, 1913 was 15.49 against 16.52 for February, 1912.

Of deaths from reportable diseases the principal decreases were tuberculosis (all forms), 18, and scarlet fever, 2; and the principal increases were whooping cough, 9, diphtheria, 6, and typhoid fever, 6, though it should be noted that 4 of the typhoid deaths and 3 of the diphtheria deaths occurred among cases brought to Boston for treatment.

Other important differences were as follows:

February, 1913, decreases compared with February, 1912:

Heart disease and nephritis	30
"Other diseases"	30
Violent deaths	9
Suicide	6
Puerperal septicemia	5

February, 1913, increases compared with February, 1912:

Broncho-pneumonia	9
Ill defined diseases	7
Other puerperal diseases	6
Cirrhosis	5
Cancer	3

Ward 8 had the lowest rate, 9.34 and Ward 18 the highest, 21.41.

There were 2 less deaths under 1 year than in February, 1912, 2 less under 5 years, and 26 less over 60. Total deaths under one year were 191, which is 10 more than the average number for February for the preceding five years.

Seventy-one of these deaths were due to premature birth, congenital debility, malformations and other diseases peculiar to early infancy; 45 to pneumonia and broncho-pneumonia; 18 to reportable diseases; 15 to diarrhea and enteritis; and 42 to other causes.

Of these deaths under 1 year Ward 6 had the largest number, 23, and Ward 24 came next with 11.

One hundred twenty-eight were over two weeks old and 68 of these were bottle fed.

GENERAL STATISTICS.

Population, Ward Area, Persons to Acre, and Rates.

	Land Area in Acres.	Population, 1910 Census.	Persons to Acre of Land. (Using Census Population.)	Population, Estimated, July 1, 1913.†	STILLBIRTHS EXCLUDED.		
					Death Rates, 1912. (Population, Estimated.)†	Birth Rates, 1911. (Population, Estimated.)†	Death Rates, 1912, Of Children Under One Year, Per 1,000 Births, 1911.
* Boston.....	27,674	686,092	24.8	735,399	16.17	25.99	119.35
Wards 1.....	1,188	29,676	24.9	32,439	13.05	24.90	104.58
2.....	357	28,812	80.7	30,676	17.11	33.37	120.81
3.....	332	15,339	46.2	15,667	15.29	26.84	106.02
4.....	301	13,294	44.1	13,808	18.02	25.50	148.26
5.....	207	12,811	61.9	12,914	16.69	24.28	118.59
6.....	293	35,758	122.0	39,492	16.18	48.81	100.33
7.....	394	14,913	37.9	14,483	20.05	26.57	94.39
8.....	171	32,430	189.6	33,479	12.07	33.21	70.64
9.....	186	26,427	141.5	29,214	15.13	27.40	106.24
10.....	394	25,320	64.3	26,277	11.86	10.51	114.81
11.....	663	27,444	41.4	30,738	9.69	14.22	63.73
12.....	235	24,294	103.4	25,948	14.98	14.57	181.82
13.....	611	21,561	35.3	21,501	17.24	31.11	117.91
14.....	405	23,584	58.2	24,527	14.44	24.14	115.92
15.....	277	21,216	76.6	21,803	14.80	20.25	119.82
16.....	564	25,633	45.6	28,033	12.75	24.23	110.42
17.....	460	26,426	57.4	27,793	15.49	25.65	117.22
18.....	220	22,735	103.3	23,133	17.08	25.08	99.30
19.....	760	31,714	41.7	33,332	13.77	22.77	111.41
20.....	1,716	55,720	32.5	64,723	12.97	20.33	†158.90
21.....	640	30,511	20.5	33,085	13.54	17.53	85.14
22.....	760	29,975	38.1	31,403	12.50	20.55	100.48
23.....	7,617	30,668	4.0	33,423	12.13	19.93	94.94
24.....	3,252	37,749	11.6	41,695	12.63	23.73	103.11
25.....	2,740	26,575	9.7	29,661	11.95	24.73	96.21
26.....	2,869	15,507	5.4	16,152	12.29	29.59	107.30

* Hyde Park was annexed to Boston January 1, 1912, and became Ward 26. Under "Boston," in the above table, Hyde Park statistics are included.

† Population estimated by arithmetical method, using the Censuses of 1905 and 1910.

† An infant asylum is located in this ward.

VITAL STATISTICS.

February. General Summary.

	1913.	1912.
Total deaths	990	1,056
Population, estimated*	735,399	720,031
Death rate per 1,000	17.55	18.46
Deaths of nonresidents	116	111
Corrected death rate†	15.49	16.52

* Population estimated by arithmetical method, using the censuses of 1905 and 1910.

† Nonresidents not included.

February, 1913. Statement of Deaths.

Total number (stillbirths ex- cluded)		NATIVITY.	
	990	United States	604
		Ireland	171
		England and Wales	24
		Scotland	8
		Germany	20
		Canada	73
		Italy	22
		Russia and Poland	28
		Sweden and Norway	9
		France	2
		Other countries	22
		Unknown	7
SEX.		NATIVITY OF MOTHERS.	
Males	513	United States	275
Females	477	Ireland	311
		England and Wales	32
		Scotland	18
		Germany	29
		Canada	76
		Italy	67
		Russia and Poland	55
		Sweden and Norway	11
		France	1
		Other countries	31
		Unknown	84
CONDITION.			
Single	481		
Married	329		
Widowed	172		
Divorced	4		
Unknown	4		
COLOR.			
White	963		
Black (negro or mixed)	22		
Chinese	4		
Japanese	1		
Deaths of children:			
Under one year	191		
Under two years	234		
Under five years	265		
Stillbirths during the month,	55		

Abridged List Class Number.	CAUSES OF DEATH.	TOTALS.		Under 1 Year.	1 Year.	2 Years.	3 Years.	4 Years.	Under 5 Years.	5 to 9 Years.	10 to 14 Years.	15 to 19 Years.
		1913.	1912.									
	Total, all causes..... {1912 1911	990 1,056	.....	191 193	43 40	23 15	4 11	4 8	265 267	18 18	5 16	14 12
1	Typhoid fever.....	8	2	.....	.....	.....	.....	.....	.....	1	1	1
3	Malarial fever.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
4	Smallpox.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
5	Measles.....	12	12	3	6	1	1	.....	11	1	.....	.....
6	Scarlet fever.....	9	11	1	1	3	1	1	7	2	.....	.....
7	Whooping cough.....	15	6	6	7	1	.....	.....	14	1	.....	.....
8	Diphtheria and croup.....	15	9	2	4	5	.....	.....	11	2	2	.....
9	Influenza.....	1	4	.....	.....	.....	.....	.....	.....	.....	.....	.....
12	Other epidemic diseases.....	7	10	2	.....	.....	.....	.....	2	.....	.....	.....
13	Tuberculosis of the lungs.....	85	95	2	1	.....	.....	.....	3	.....	1	3
14	Tuberculous meningitis.....	8	12	1	3	2	.....	1	7	1	.....	.....
15	Other forms of tuberculosis.....	4	8	2	.....	.....	.....	1	3	.....	.....	1
16	Cancer, malignant tumor.....	65	62	.....	.....	.....	.....	.....	.....	2	.....	.....
17	Simple meningitis (except cerebro-spinal meningitis).....	1	6	.....	.....	.....	.....	.....	.....	.....	.....	.....
17a	Cerebro-spinal meningitis.....	2	4	1	.....	1	.....	.....	2	.....	.....	.....
18	Apoplexy and softening of the brain.....	50	52	1	.....	.....	.....	.....	1	.....	.....	.....
19	Organic heart diseases.....	139	140	.....	.....	.....	.....	.....	.....	2	1	2
20	Acute bronchitis.....	11	14	7	1	.....	.....	.....	8	.....	.....	.....
21	Chronic bronchitis.....	5	1	.....	.....	.....	.....	.....	.....	.....	.....	.....
22	Pneumonia (except broncho-pneumonia).....	95	95	18	3	3	.....	.....	24	1	.....	1
22a	Broncho-pneumonia.....	69	60	27	11	3	.....	.....	41	.....	.....	1
23	Other respiratory diseases.....	12	8	2	1	.....	.....	.....	3	.....	.....	.....
24	Diseases of the stomach (cancer excepted).....	6	13	2	.....	.....	.....	.....	2	.....	.....	.....
25	Diarrhea and enteritis (under two years).....	17	15	15	2	.....	.....	.....	17	.....	.....	.....
26	Appendicitis and typhlitis.....	7	7	.....	.....	.....	.....	.....	.....	.....	.....	2
27	Hernia, intestinal obstruction.....	8	9	1	.....	.....	.....	.....	1	.....	.....	.....
28	Cirrhosis of liver.....	9	4	.....	.....	.....	.....	.....	.....	.....	.....	.....
29	Bright's disease and nephritis.....	49	78	1	.....	.....	.....	.....	1	.....	.....	1
30	Diseases of women (not cancer).....	8	8	.....	.....	.....	.....	.....	.....	.....	.....	.....
31	Puerperal septicemia.....	2	7	.....	.....	.....	.....	.....	.....	.....	.....	.....
32	Other puerperal diseases.....	9	3	.....	.....	.....	.....	.....	.....	.....	.....	1
33	Congenital debility and malformations.....	57	55	57	.....	.....	.....	.....	57	.....	.....	.....
34	Old age.....	1	4	.....	.....	.....	.....	.....	.....	.....	.....	.....
35	Violent deaths.....	42	51	2	1	1	2	1	7	3	.....	.....
36	Suicide.....	5	11	.....	.....	.....	.....	.....	.....	.....	.....	.....
37	Other diseases.....	147	177	31	2	3	.....	.....	36	2	.....	1
38	Ill-defined causes.....	10	3	7	.....	.....	.....	.....	7	.....	.....	.....

Of deaths of nonresidents from typhoid fever, measles, scarlet fever and diphtheria the following occurred

VITAL STATISTICS.

Cause and Age.

February, 1913.

20 to 24 Years.	25 to 29 Years.	30 to 34 Years.	35 to 39 Years.	40 to 44 Years.	45 to 49 Years.	50 to 54 Years.	55 to 59 Years.	60 to 64 Years.	65 to 69 Years.	70 to 74 Years.	75 to 79 Years.	80 to 84 Years.	85 to 89 Years.	90 Years and over.	SEX.		Abridged List Class Number.
															Males.	Females.	
15 45	39 41	43 50	57 43	55 58	61 55	49 68	82 70	68 69	68 69	65 48	36 59	25 38	17 25	8 5	513 537	477 519	
.....	2	.....	2	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	4	4	1
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	3
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	4
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	7	5	5
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	7	2	6
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	12	3	7
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	5	10	8
.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	1	9
1	.....	1	.....	.....	1	.....	1	.....	.....	1	.....	.....	.....	.....	6	1	12
3	14	9	15	11	13	6	3	1	2	.....	1	.....	.....	.....	56	29	13
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	3	5	14
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2	2	15
1	1	1	3	4	8	6	9	8	9	7	4	2	.....	.....	28	37	16
.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	17
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2	17a
.....	.....	.....	2	2	2	4	8	9	7	6	4	2	2	1	17	33	18
1	1	6	8	4	12	5	23	20	17	17	9	6	2	3	61	78	19
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	1	1	6	5	20
.....	1	.....	.....	.....	.....	.....	1	.....	1	1	1	.....	.....	.....	2	3	21
2	2	3	7	6	5	9	10	5	7	6	2	5	.....	.....	63	32	22
.....	2	1	1	.....	.....	1	3	4	1	7	3	2	1	1	36	33	22a
.....	.....	2	.....	1	.....	2	1	1	.....	.....	1	.....	1	.....	4	8	23
.....	.....	.....	1	.....	.....	.....	.....	.....	.....	1	1	.....	1	.....	3	3	24
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	5	12	25
.....	.....	1	1	1	.....	1	.....	1	.....	.....	.....	.....	.....	.....	4	3	26
.....	.....	.....	.....	3	.....	.....	.....	2	.....	1	.....	1	.....	.....	4	4	27
.....	.....	2	.....	1	.....	2	1	1	2	.....	.....	.....	.....	.....	5	4	28
.....	.....	4	1	6	3	4	5	4	6	6	3	2	3	.....	22	27	29
.....	.....	2	.....	2	1	.....	2	.....	1	.....	.....	.....	.....	.....	.....	8	30
.....	1	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2	31
3	2	2	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	9	32
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	29	28	33
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	1	34
2	7	2	4	4	.....	2	4	3	1	1	2	.....	.....	.....	30	12	35
.....	1	.....	.....	.....	.....	.....	1	1	2	.....	.....	.....	.....	.....	4	1	36
2	5	6	10	9	16	6	9	8	10	11	3	5	6	2	81	66	37
.....	.....	.....	1	.....	.....	.....	1	.....	1	.....	.....	.....	.....	.....	6	4	38

among cases sent to Boston for treatment: Typhoid fever, 4; measles, 1; scarlet fever, 2; and diptheria, 3.

Abridged List Class Number.	CAUSES OF DEATH.	Boston.	WARD RESIDENCE.										
			1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
	All causes.....	990	36	37	17	18	16	52	23	24	40	28	24
	Rates per 1,000 (Feb., 1913)	17.55	14.47	15.72	14.14	16.99	16.15	17.16	20.70	9.34	17.85	13.89	10.18
	population..... (Feb., 1912)	18.46	11.16	28.44	16.17	23.06	21.49	17.08	19.80	15.19	15.54	17.93	13.56
1	Typhoid fever.....	8	1						1				
3	Malarial fever.....												
4	Smallpox.....												
5	Measles.....	12						2	4		1		1
6	Scarlet fever.....	9											1
7	Whooping cough.....	15	1					1		2			
8	Diphtheria and croup.....	15	2			1			1	1			
9	Influenza.....	1											
12	Other epidemic diseases.....	7						1					
13	Tuberculosis of the lungs.....	85	2	1	1	5	1	3	2	1	10	3	
14	Tuberculous meningitis.....	8									1		
15	Other forms of tuberculosis....	4	2		1								
16	Cancer, malignant tumor.....	65	4	4	1		1		1	1	3	5	1
17	Simple meningitis (except cerebro-spinal meningitis).	1					1						
17a	Cerebro-spinal meningitis.....	2									1		
18	Apoplexy and softening of the brain.	50	1	2	1	2	1	1	1		1	1	4
19	Organic heart diseases.....	139	3	3	4		5	7		4	5	5	
20	Acute bronchitis.....	11						2					1
21	Chronic bronchitis.....	5				1							
22	Pneumonia (except broncho- pneumonia).	95	5	7		1	3	4	3	2	6		5
22a	Broncho-pneumonia.....	69	1	5		3		11	3	1	1	1	3
23	Other respiratory diseases.....	12		1				3			1		
24	Diseases of the stomach (cancer excepted).	6		1				1					
25	Diarrhea and enteritis (under two years).	17						1		2			
26	Appendicitis and typhlitis....	7											
27	Hernia, intestinal obstruction,	8				1	1		1		1		
28	Cirrhosis of liver.....	9	1		1								
29	Bright's disease and nephritis..	49	1	2	1				1			5	1
30	Diseases of women (not cancer),	8											1
31	Puerperal septicemia.....	2											
32	Other puerperal diseases.....	9						1		1			
33	Congenital debility and mal- formations.	57	5	1	1	1		4	2		3	3	1
34	Old age.....	1											
35	Violent deaths.....	42	1	4	1		1	1		2	3		2
36	Suicide.....	5							1				
37	Other diseases.....	147	5	5	5	2	2	7	2	7	3	4	3
38	Ill defined causes.....	10	1	1		1		2				1	
	Total deaths under one year..	191	9	4	4	5	1	23	6	6	6	5	4

WARD RESIDENCE.

12.	13.	14.	15.	16.	17.	18.	19.	20.	21.	22.	23.	24.	25.	26.	Boston, Ward Unknown.	Nonresidents.	Unknown.	Abridged List Class Number.
29	33	34	28	40	31	38	42	66	43	34	39	41	38	15	....	116	8	....
14.57	20.01	18.07	16.74	18.60	14.54	21.41	16.43	13.29	16.94	14.11	15.21	12.82	16.70	12.11	....	....	....	....
12.87	15.21	11.43	17.46	14.76	16.10	18.60	16.49	16.06	20.27	12.60	11.21	17.73	16.23	18.94	....	....	....	....
....	....	....	....	....	....	....	....	....	1	....	1	....	....	....	....	4	...	1
....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	3
....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	4
....	....	....	....	....	....	1	....	1	....	1	....	....	....	....	....	1	...	5
....	....	....	1	1	1	1	....	....	1	....	....	....	1	....	....	2	...	6
....	1	....	2	1	2	....	....	1	....	....	....	....	2	....	....	2	...	7
....	....	1	....	3	2	....	....	....	1	....	....	....	....	....	....	3	...	8
....	....	....	....	....	....	....	....	....	....	....	1	....	....	....	....	....	....	9
....	....	....	....	....	....	1	....	....	....	....	....	....	2	1	....	2	...	12
6	3	5	5	5	3	5	7	1	3	4	1	1	1	1	....	5	...	13
....	....	....	1	....	2	1	....	1	....	1	....	1	....	....	....	....	....	14
....	....	....	....	....	....	....	....	....	....	1	....	....	....	....	....	....	....	15
2	....	1	....	2	2	3	4	4	2	....	6	4	2	2	....	10	...	16
....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	17
....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	17a
3	....	2	1	1	....	3	3	4	2	1	1	3	5	2	....	4	...	18
3	7	7	5	7	5	5	5	13	7	5	8	7	7	2	....	10	...	19
....	1	1	....	....	1	....	1	....	1	....	2	1	....	....	....	....	....	20
....	1	....	....	1	....	....	....	....	1	1	....	....	....	....	....	....	....	21
1	4	1	1	3	1	4	2	4	5	6	2	5	6	....	....	13	1	22
2	1	2	3	3	1	4	4	3	2	1	1	6	....	1	....	5	1	22a
....	1	1	....	1	....	....	2	1	....	....	....	....	1	....	....	....	....	23
....	....	....	....	1	....	....	1	1	1	....	....	....	....	....	....	....	....	24
1	1	....	....	2	....	....	1	1	2	1	....	1	....	....	....	4	...	25
....	....	....	....	....	....	....	....	3	....	1	....	1	1	....	....	1	...	26
....	....	....	....	....	....	....	....	2	....	1	1	....	....	....	....	....	....	27
1	....	1	1	....	....	1	....	2	1	....	....	....	....	....	....	....	....	28
2	1	1	1	1	4	1	3	6	4	2	1	2	1	2	....	5	1	29
....	....	1	1	....	....	....	1	....	....	1	....	....	....	....	....	3	...	30
....	....	....	....	....	....	....	....	....	....	....	2	....	....	....	....	....	....	31
....	....	....	2	1	....	....	....	1	....	....	....	1	....	....	....	2	...	32
1	3	2	....	1	1	1	3	3	....	2	2	3	2	3	....	8	1	33
....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	....	....	....	34
....	3	1	2	1	....	3	1	1	4	....	1	....	1	....	....	8	1	35
1	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	1	1	36
6	6	4	1	5	6	4	4	13	5	5	9	5	4	1	....	22	2	37
....	....	2	....	....	....	....	....	....	....	....	....	....	1	....	....	1	...	38
3	6	5	3	5	6	5	10	9	5	9	7	11	6	3	....	21	4	....

VITAL STATISTICS.

February, 1913, Infant Mortality.

Detailed List Class Number.	CAUSES OF DEATH.	FEBRUARY TOTALS, UNDER 1 YEAR.		Under 1 Day.	1 to 2 Days.	2 to 3 Days.	3 Days to 1 Week.	1 to 2 Weeks.	2 to 3 Weeks.	3 Weeks to 1 Month.	1 to 2 Months.	2 to 3 Months.	3 to 6 Months.	6 to 9 Months.	9 to 12 Months.	AGED 2 WEEKS AND OVER.		Nonresidents.
		1913.	1912.													Breast Fed.	Bottle Fed.	
*	Total.....	191	193	22	7	9	11	14	11	8	21	12	36	16	24	60	68	21
	Male.....	101	104	10	4	3	7	5	4	6	15	3	22	9	13	33	39	11
	Female.....	90	89	12	3	6	4	9	7	2	6	9	14	7	11	27	29	10
	White.....	184	189	22	6	7	11	13	10	6	21	12	36	16	24	58	67	21
	Colored.....	7	4	...	1	2	...	1	1	2	...	...	...	...	...	2	1	...
1	Typhoid fever.....																	
5	Smallpox.....																	
6	Measles.....	3	4	...									1	...	2	2	1	...
7	Scarlet fever.....	1	1	...											1	...	1	1
8	Whooping cough.....	6	2	...							1	...	1	...	4	4	2	1
9	Diphtheria and croup.....	2	1	...										1	1	1	1	...
10	Influenza.....																	
14	Dysentery.....																	
18	Erysipelas.....	2	2	...						1	...		1	...		1	1	1
19	Other epidemic diseases.....		1	...														
20	Pus-infection and septicemia.....	1	...	...										1	...		1	1
24	Tetanus.....																	
28	Tuberculosis of the lungs.....	2	2	...								1	1	...			2	...
29	Acute miliary tuberculosis.....		1	...														
30	Tuberculous meningitis.....	1	5	...										1	...	1	...	
31\35}	Other forms of tuberculosis.....	2	...	...							1	...		1	...	1	1	...
36	Ricketts.....	3	...	...									2	1	...	1	2	...
37	Syphilis.....	5	2	...			1	...		1	2	...	1	...		2	2	1
38	Gonococcus infection.....																	
61	Simple meningitis.....		5	...														
61a	Cerebro-spinal fever.....	1											1	...		1	...	
63a	Acute poliomyelitis.....																	
71	Convulsions.....	1	1	...										1	...		1	...
76	Diseases of the ears.....	2	...	...									1	1	...		2	...
79	Organic diseases of the heart.....																	
89	Acute bronchitis.....	7	6	...					1	2	...		1	1	2	4	3	...
91	Broncho-pneumonia.....	27	30	...		2	...	2	2	...	4	2	9	2	4	14	9	3
92	Pneumonia.....	18	20	...		1	...	2	...		1	1	6	3	4	9	6	1
93	Pleurisy.....	1	...	...											1	1	...	
103	Other diseases of stomach.....	2	1	...									1	...	1	1	1	...
104	Diarrhea and enteritis.....	15	14	...			1	1	1	...	2	2	5	1	2	4	9	3
108	Appendicitis and typhlitis.....																	

VITAL STATISTICS.
February, 1913, Infant Mortality.—Concluded.

Detailed List Class Number.	CAUSES OF DEATH.	FEBRUARY TOTALS, UNDER 1 YEAR.		Under 1 Day.	1 to 2 Days.	2 to 3 Days.	3 Days to 1 Week.	1 to 2 Weeks.	2 to 3 Weeks.	3 Weeks to 1 Month.	1 to 2 Months.	2 to 3 Months.	3 to 6 Months.	6 to 9 Months.	9 to 12 Months.	AGED 2 WEEKS AND OVER.		Nonresidents.
		1913.	1912.													Breast Fed.	Bottle Fed.	
109	Hernias, intestinal obstruction,	1	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	1	.....	.....
117	Simple peritonitis.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
119	Acute nephritis.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	1	.....
143	Furuncle.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
144	Acute abscess.....	2	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	2	.....	.....	.....	2	.....
145	Other diseases of skin, etc....	1	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	1	.....
150a	Hydrocephalus.....	1	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
b	Congenital malformations of heart.	10	8	1	3	1	1	1	.....	2	1	.....	.....	.....	.....	.....	3	.....
c	Other malformations.....	2	5	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	1	.....	.....	2	1
151a	Premature birth.....	34	31	16	1	2	5	3	4	1	2	.....	.....	.....	.....	2	5	7
b	Congenital debility.....	10	9	.....	.....	.....	1	2	2	.....	4	.....	.....	1	.....	3	4	.....
152a	Injuries at birth.....	6	14	2	2	.....	1	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
b	Other causes peculiar to early infancy.	8	10	1	.....	2	1	1	1	.....	2	.....	.....	.....	.....	2	1	.....
167	Burns (conflagrations excepted).....	.....	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
168	Absorption of deleterious gases,	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
172	Traumatism by fall.....	1	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	1	1
182	Homicide.....	1	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
184	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
187	Ill-defined diseases.....	7	1	.....	1	.....	.....	.....	.....	.....	.....	4	2	.....	.....	3	3	.....
189	Other causes.....	4	11	.....	.....	1	.....	1	.....	.....	.....	1	1	.....	.....	2	.....	.....
	Breast fed *.....	60	30	.....	.....	.....	.....	.....	7	3	10	5	17	6	12	60	.....	1
	Bottle fed *.....	68	90	.....	.....	.....	.....	.....	4	5	11	7	19	10	12	.....	68	15
	Nonresidents.....	21	16	1	.....	1	3	.....	1	2	3	1	3	2	4	1	15	21

* Aged two weeks and over.

Additional Deaths for Other Months.

Jan., 1912.—1 male; pneumonia; white; aged 60 years; condition unknown; residence unknown; birthplace unknown; birthplace of mother unknown.

1 male; homicide by other means; white; aged 1 day minus; single; residence Ward 12; born in United States; mother born in Canada.

DIVISION OF COMMUNICABLE DISEASES, FEBRUARY, 1913.

Medical Inspectors.

New cases visited:

Diphtheria:

<i>a.</i> Isolation	115
<i>b.</i> Diagnosis	6

Scarlet fever:

<i>a.</i> Isolation	150
<i>b.</i> Diagnosis	15
<i>c.</i> Release	87

Measles:

<i>a.</i> Isolation	9
<i>b.</i> Diagnosis	4

Smallpox:	1
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Leprosy	1
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Varicella:

<i>a.</i> Isolation	0
<i>b.</i> Diagnosis	5

Ophthalmia neonatorum	8
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Tuberculosis	32
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Typhoid fever	13
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Deaths investigated	15
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Vaccinations performed	5
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Certificates of vaccination issued	4
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Nurses.

New cases visited:

Diphtheria	146
Scarlet fever	149
Measles	801
Varicella	140
Typhoid fever	19
Whooping cough	120
Ophthalmia neonatorum	77
Mumps	67
Cerebro-spinal meningitis	3
Trachoma	6
Released cultures taken for diphtheria	136

Old cases visited:

Diphtheria	238
Scarlet fever	547
Measles	632
Varicella	90
Typhoid fever	33
Whooping cough	80
Ophthalmia neonatorum	147
Mumps	2
Cerebro-spinal meningitis	1

Disinfections.

Diphtheria	171
Scarlet fever	142
Tuberculosis	190
Infected bedding, etc.	1 lot
Infected books, etc.	5 lots
Infected carriages, etc.	4

Forcible Removals.

Tuberculosis	2
Scarlet fever	1
Diphtheria	1
Typhoid fever	2

DIVISION OF

February, 1913. Cases Reported.

WARDS.	Anterior Poliomyelitis.	Actinomycosis.	Asiatic Cholera.	Bubonic Plague.	Cerebro-spinal Meningitis.	Diphtheria.	Glanders.	Leprosy.	Malaria.	Malignant Fistule.	Measles.	Mumps.	Ophthalmia Neonatorum.
1.....						8					4	1	1
2.....						19					14	5	10
3.....						5					1	5	....
4.....						3					5		....
5.....						2					2		....
6.....						10					71	14	10
7.....						2					35	....	5
8.....						14					110	3	15
9.....					1	6					30	1	5
10.....						3					81	1	3
11.....						4					86	6	1
12.....						8					33	1	6
13.....						2					10	2	6
14.....						8					29	2	2
15.....					2	6					10	....	5
16.....						7					46	3	4
17.....						9					35	7	2
18.....						9					27	....	4
19.....						4					38	....	2
20.....						12					107	5	8
21.....						7					39	2	....
22.....						14					28	2	2
23.....						7					9		....
24.....						3					35	1	4
25.....						3					1	6	....
26.....						2					1	....	1
Total.....					3	177					887	67	96
Unknown.....													....
Nonresidents.....					1	9					4		....
Grand total.....					4	186					891	67	96
Corresponding month last year..	2	1	....		5	165					670	32	104

Included in the nonresidents were the following cases, brought to Boston

COMMUNICABLE DISEASES.

Cases Reported.

February, 1913.

Scarlet Fever.	Smallpox.	Tetanus.	Trachoma.	Trichinosis.	Tuberculosis (Pulmonary and Miliary).	Tuberculosis (Other Forms).	Typhoid Fever.	Typhus Fever.	Varicella.	Whooping Cough.	Yellow Fever.	WARDS.
12	6	...	1	...	2	9	...	1
7	5	...	2	...	5	3	...	2
2	1	...	...	...	4	1	...	3
1	4	...	...	...	1	1	...	4
1	2	...	...	...	5	2	...	5
.....	16	2	1	...	3	6	...	6
.....	1	...	15	...	3	...	2	3	...	7
5	2	...	14	...	2	1	11	6	...	8
7	16	1	...	...	3	8	...	9
1	10	2	...	...	1	...	...	10
4	9	1	...	...	5	...	...	11
15	16	...	...	...	4	12	...	12
3	5	...	...	...	1	6	...	13
12	10	...	...	...	4	6	...	14
5	3	1	...	...	7	10	...	15
6	9	...	1	...	6	14	...	16
11	1	...	8	2	1	...	...	19	...	17
1	12	1	2	...	6	1	...	18
6	16	...	1	...	3	1	...	19
22	5	1	2	...	24	13	...	20
9	5	...	1	...	9	9	...	21
5	4	1	1	...	6	...	...	22
15	2	...	...	...	4	1	...	23
5	7	...	3	...	14	4	...	24
10	2	...	3	...	...	...	8	11	...	25
3	1	...	...	...	2	...	...	26
168	6	...	204	12	21	1	140	146	...	Total
1	2	...	...	...	...	...	...	Unknown
16	2	...	7	...	8	...	...	...	...	Nonresidents
185	8	...	213	12	29	1	140	146	...	Grand total
124	1	...	3	...	288	43	14	...	221	111	...	Corresponding month last year.

for treatment: measles, 4; scarlet fever, 16; diptheria, 9; typhoid fever, 8.

DIVISION OF CHILD HYGIENE.—FEBRUARY, 1913.

1. Medical Inspection of Schools.

Number inspections made	16,816
Number physical examinations made	11,356
Number visits made to homes	137

There were 1,523 pupils excluded from schools, ill with the following diseases:

Diphtheria	7	Syphilis	2
Scarlet fever	3	Pediculosis	808
Measles	24	Acute or purulent conjunctivitis	35
German measles	1	Ringworm	38
Chicken pox	24	Scabies	32
Whooping cough	9	Impetigo	48
Mumps	24	Erysipelas	4
Pulmonary tuberculosis	3	Miscellaneous	344
Acute tonsillitis	110		
Influenza	7		

There were 14,419 cases of noncontagious disease found during the month, subdivided as follows:

Diseases of oral and respiratory tract	3,555
Diseases of ear	144
Diseases of eye	487
Diseases of skin	609
Dental caries	4,150
Miscellaneous	5,474

2. Physical Examination of Licensed Minors.

There were 236 children between the ages of 14 and 16 years examined during the month. Sixty-six were found to be without defects and 170 with defects as follows:

Hearing	1	Cardiac disease	7
Eyesight	28	Orthopedic defects	3
Defective nasal breathing	6	Skin	4
Defective teeth	145	Malnutrition	1
Cervical glands	7	Miscellaneous	44
Pulmonary disease	1		

Certificates were refused at this time to seven applicants.

3. Pre-Natal and Post-Natal Work.

Pre-Natal.

Number cases	44	Number babies breast fed	10
Number visits	82	Number babies bottle fed	1
Number babies born	11		

The following defective conditions were noted:

Varicose veins	4
--------------------------	---

Mothers attended as follows:

Family physician	7	Midwife	1
Hospital	3		

Post-Natal.

Number cases	984	Bottle-fed	72
Number visits	2,548	Breast and bottle-fed	55
Breast-fed	857		

Defective Conditions Noted.

Otitis media	10	Skin	16
Improper feeding	39	Cervical glands	2
Orthopedic defects	3	Cervical abscess	7
Ophthalmia	32		

BACTERIOLOGICAL LABORATORY.

DIPHTHERIA:		GONORRHEA:	
Positive for diagnosis...	155	Positive.....	43
Positive for release.....	105	Negative.....	93
Negative for diagnosis...	1,363	Unsatisfactory.....	0— 136
Negative for release.....	290	GONORRHEAL OPHTHALMIA:	
"No growth" cultures...	17— 1,930	Positive.....	0
TUBERCULOSIS:		Negative.....	37
Positive.....	81	Unsatisfactory.....	0— 37
Negative.....	339	OTHER EXAMINATIONS:	
Unsatisfactory.....	0— 420	*Positive.....	10
TYPHOID:		Negative.....	37
Positive.....	15	Unsatisfactory.....	1— 48
Negative.....	84	BACTERIOLOGICAL MILK	
Atypical.....	2— 101	EXAMINATIONS.....	544
GLANDERS:		Total.....	3,219
Positive.....	0		
Negative.....	3		
Unsatisfactory.....	0— 3		

* K-L Vir. K. L. smear organisms, malaria, G-U. T. B., paratyphoid, pneumococci, leprosy, actinomycosis.

INSPECTION OF MILK, VINEGAR, ETC.

Examination as to Statute Requirements.

Samples examined, milk from stores.....	912
" " milk from wagons.....	257
" " milk brought in by citizens.....	24
" " milk for bacteriological examination.....	544
" " vinegar.....	126
" " butter and cheese.....	152
" " eggs.....	10
" " frankforts.....	1
Total samples.....	2,026

INSPECTION OF DAIRIES.

Satisfactory * on first inspection.....	320
Satisfactory on later inspection.....	236
	556
Unsatisfactory on first inspection.....	264
Unsatisfactory on later inspection.....	46
	310
Total number of inspections.....	866
Dairies having milk rooms.....	348
Dairies without milk rooms.....	518
Number of cattle inspected.....	12,411
Number of dairies prohibited shipping milk to Boston because of insanitary conditions of premises.....	39

* "Satisfactory" means having a score of at least 45 per cent. by the government score card.

INSPECTED AT BRIGHTON ABATTOIR.

Cattle inspected.....	235	Calves condemned (5).....	159 lbs.
Calves inspected.....	720	Sheep condemned.....	— lbs.
Sheep inspected.....	—	Swine condemned (8).....	947 lbs.
Swine inspected.....	5,098	Swine condemned (parts of 297)	2,119 lbs.
Cattle condemned (parts of 36), 1,097 lbs.			

INSPECTION OF PROVISIONS.—ARTICLES CONDEMNED.

Meats.		Miscellaneous.	
Veal (immature).....	17 lbs.	Candy (fermented).....	19 lbs.
Beef (tainted).....	5 lbs.	Candy (wormy).....	1 lb.
Pork (tainted).....	170 lbs.	Candy (stale).....	3 lbs.
Poultry (tainted).....	4 lbs.		

SANITARY INSPECTION DIVISION.

New reports.....	2,112
Reinspections.....	8,633
New tenement house reports.....	588
Nuisances reported.....	4,961
Legal notices.....	348
Court cases.....	18
Fines.....	\$102
Tenements vacated.....	32
Milk applications approved.....	101
Stable hearings.....	4
Stable permits granted.....	3
Stable permit withheld.....	1
Stable permits refused.....	2
Stable vacated.....	1
Stable permit revoked.....	1
Dump permits.....	9

QUARANTINE.

Vessels inspected at quarantine.....	57
Total immigrants arriving in Boston.....	2,264

MONTHLY METEOROLOGICAL SUMMARY.
Taken at Weather Bureau, Boston, February 1913.

DAY.	TEMPERATURE, DEGREES FAHRENHEIT.			Relative Humidity.	Daily Precipitation.	Actual Hours Sun- shine.	WIND.		
	Maximum.	Minimum.	Mean.				Average Hourly Velocity. (Miles.)	Maximum Velocity. (Miles.)	Prevailing Direction.
1.....	56	19	38	42	.35	9.1	23.1	39	W.
2.....	31	17	24	56	0	10.1	14.5	23	W.
3.....	34	24	29	78	.54	0	8.2	18	S. W.
4.....	36	24	30	62	0	9.3	10.1	19	W.
5.....	28	16	22	51	0	8.9	14.3	26	W.
6.....	24	14	19	50	0	8.6	13.8	26	W.
7.....	24	10	17	57	0	10.3	13.6	22	W.
8.....	32	18	25	56	0	6.9	15.7	24	S. W.
9.....	27	12	20	55	0	9.4	14.0	27	W.
10.....	23	3	13	40	0	10.4	10.8	25	N. W.
11.....	37	15	26	74	.14	0	8.8	19	S. W.
12.....	34	9	22	51	0	10.0	16.8	31	W.
13.....	25	4	14	44	0	10.3	11.5	20	W.
14.....	41	18	30	51	0	10.6	11.6	19	S. W.
15.....	45	28	36	56	0	9.2	8.5	13	W.
16.....	42	31	36	90	T	6.7	4.7	9	E.
17.....	36	20	28	76	.05	3.5	9.6	24	N.
18.....	31	14	22	42	0	9.4	18.1	28	N. W.
19.....	42	16	29	36	0	10.8	8.6	18	W.
20.....	60	33	46	56	0	6.6	7.7	16	S. W.
21.....	58	39	48	56	0	5.6	8.7	14	W.
22.....	43	35	39	90	.94	0	8.8	24	E.
23.....	40	18	29	60	T	4.7	15.8	31	W.
24.....	29	15	22	54	0	10.7	12.3	20	N. W.
25.....	26	10	18	52	0	9.8	10.9	20	N. W.
26.....	33	15	24	49	T	8.8	8.8	14	W.
27.....	36	27	32	74	.88	0	7.0	17	N.
28.....	43	32	38	89	.09	3.2	7.3	17	E.
Totals.....	—	—	—	—	2.99	202.9	—	—	—
Means.....	36.3	19.1	27.7	58.8	0.11	68%	11.6	1st	W.

Latitude 42 degrees 21 minutes.

Longitude 71 degrees 4 minutes.

BOSTON WARD MAP.



MONTHLY BULLETIN

OF THE

HEALTH DEPARTMENT

OF THE

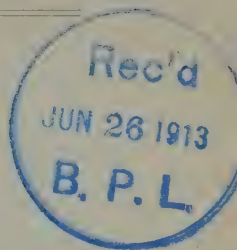
CITY OF BOSTON



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CITY OF BOSTON
PRINTING DEPARTMENT

1913



ORGANIZATION OF THE HEALTH DEPARTMENT

FRANCIS X. MAHONEY, M. D., *Chairman.*

P. H. MULLOWNEY, M. D. V.

F. H. SLACK, M. D., *Secretary.*



MONTHLY BULLETIN

OF THE

HEALTH DEPARTMENT OF THE CITY OF BOSTON.

All communications relating to this publication should be addressed to
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VOL. 2.	BOSTON, MARCH, 1913.	No. 3.
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DIPHTHERIA.

BY FREDERICK J. BAILEY, M. D.
Medical Inspector, Boston Health Department.

AN ANALYSIS OF THE DEATHS FROM DIPHTHERIA OCCUR- RING IN THIS CITY DURING THE YEAR 1912.

The following table shows the total number of deaths and cases reported during the year 1912:

1912.	Number of Cases Reported.	Number of Deaths.	Annual Case Fatality.
January.....	183	21	
February.....	165	9	
March.....	127	11	
April.....	118	9	
May.....	133	6	
June.....	93	7	
July.....	77	5	
August.....	93	4	
September.....	100	4	
October.....	111	6	
November.....	168	5	
December.....	171	15	
Total.....	1,539	102	6.63%

The entire number of deaths during this year were investigated, but in only sixty-five could a complete history be obtained. These latter are included in this series. The remaining deaths could not be considered here because the history obtained was insufficient or unreliable.

Table A.

WARDS.	Total Cases.		Total Deaths.		Case Fatality.		January.	February.	March.	April.	May.	June.	July.	August.	September.	October.	November.	December.
	Cases	Deaths	Cases	Deaths	5.88	283	175	190	182	189	222	113	100	101	196	180	227	
1911.....	2,108	124	.....	.....	5.88	283	175	190	182	189	222	113	100	101	196	180	227
1910.....	2,455	158	.....	.....	6.44	246	258	253	225	255	189	164	160	132	179	185	216
1.....	95	6	.....	.....	6.32	13	15	4	5	12	7	7	11	11	13	5	14
2.....	103	8	.....	.....	7.77	11	2	9	8	7	18	2	2	5	13	18	7
3.....	42	2	.....	.....	4.76	4	3	4	1	3	2	4	5	.....	7	2	1
4.....	39	4	.....	.....	.....	6	5	3	7	4	4	3	.....	2	2	1	2
5.....	22	.....	.....	.....	.....	4	1	3	5	3	.....	.....	1	1	1	3	.....
6.....	120	17	.....	.....	14.17	12	10	12	15	14	18	6	5	7	4	7	10
7.....	43	3	.....	.....	6.98	5	3	2	10	6	1	1	2	1	3	3	6
8.....	140	6	.....	.....	4.29	12	16	10	13	5	23	7	6	5	11	11	21
9.....	47	3	.....	.....	6.38	7	3	5	5	5	5	2	1	3	5	7	.....
10.....	42	.....	.....	.....	.....	3	3	1	2	9	3	3	.....	1	14	.....	3
11.....	35	.....	.....	.....	.....	4	.....	3	5	2	1	1	4	.....	1	8	6
12.....	76	3	.....	.....	3.95	8	4	12	10	12	5	5	4	3	6	1	6
13.....	105	6	.....	.....	5.71	13	11	10	11	7	26	1	4	5	4	6	3
14.....	69	3	.....	.....	4.35	11	6	6	8	11	7	5	3	3	2	4	3
Deaths	.....	3	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....

15.	Cases	63	.....	6.35	10	9	6	4	4	10	2	.....	2	.....	4	1	11
16.	Deaths	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
16.	Cases	113	.....	2.65	6	7	5	10	10	11	9	6	7	13	1	11	18
17.	Deaths	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
17.	Cases	109	.....	8.26	5	3	12	7	4	10	3	5	5	9	12	34	1
18.	Deaths	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
18.	Cases	58	.....	3.45	1	9	0	2	1	3	0	5	8	2	4	2	3
18.	Deaths	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
19.	Cases	102	.....	3.92	7	3	5	7	15	10	8	2	5	10	12	18	1
19.	Deaths	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
20.	Cases	197	.....	5.08	24	10	16	12	25	20	9	8	14	23	18	18	1
20.	Deaths	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
21.	Cases	64	.....	3.13	8	5	5	1	3	7	2	.....	5	5	1	9	1
21.	Deaths	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
22.	Cases	76	.....	3.95	8	9	13	7	1	2	1	3	4	10	10	8	1
22.	Deaths	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
23.	Cases	52	.....	11.54	9	7	0	1	2	4	.....	1	1	7	4	8	.....
23.	Deaths	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
24.	Cases	75	.....	2.67	14	2	2	6	10	8	5	4	1	11	4	8	.....
24.	Deaths	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
25.	Cases	117	.....	4.27	13	18	12	5	3	7	9	15	3	11	11	10	1
25.	Deaths	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Unknown.	Cases	1	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Nonresidents.	Cases	103	.....	16.50	10	11	12	12	9	10	7	8	5	6	10	3	.....
Nonresidents.	Deaths	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Nonresidents.	Deaths	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

The year 1912 shows a reduction both in number of cases and deaths. This gradual decline, which is quite apparent in late years, is evidence of the excellent result from the early use of antitoxin in this disease, and also because of isolation now insisted upon by health authorities.

Ward Distribution.

WARD.	Number of Cases.	Number of Deaths.	Case Fatality. (Per Cent.)
1.....	73	6	8.22
2.....	82	7	8.54
3.....	28	1	3.57
4.....	24	2	8.33
5.....	14		
6.....	103	8	7.77
7.....	31	1	3.23
8.....	114	3	2.63
9.....	32	1	3.13
10.....	30	5	13.33
11.....	20		
12.....	97	2	2.06
13.....	50	6	12.00
14.....	25	2	8.00
15.....	31	2	6.45
16.....	77	3	3.90
17.....	90	10	11.11
18.....	28	6	21.43
19.....	89	6	6.74
20.....	136	9	6.62
21.....	95	4	4.21
22.....	62	2	3.23
23.....	40	2	5.00
24.....	41	1	2.44
25.....	31	4	12.90
26.....	14	1	7.14
Nonresidents.....	80	8	10.00
Unknown.....	2		

In such a series as we have here the number of cases in ward distribution appears too small from which to form any just conclusion. It is interesting to note, however, that in many of the wards with the highest number of cases the case fatality remains low.

SEASON.

Our series show an increase in the number of cases during the winter months. This is in accordance with nearly all statistics, which show clearly a similar condition at this time of year. A cause for this may be found in the closer contact of children, due to overcrowding, etc., and to a lowered immunity brought about by unhygienic environments, such as uncleanness, etc. The prevalence of catarrhal inflammation of the nose and throat at this time of the year must also be considered as increasing susceptibility to this disease.

SEX.

In this series of sixty-five deaths, forty-one were females and twenty-four were males. This is a marked increase among females.

It seems improbable, however, that sex should influence the mortality in these cases.

AGE.

The deaths occurring under five years of age were quite marked—there were forty-two, while ten of these were infants under one year of age. The condition we find here follows the well known fact that in nearly all communicable diseases the mortality is greatest among children under five years of age.

SOURCE OF INFECTION.

In four of these deaths infection followed exposure to cases existing in the same family. In many of the others there occurred similar cases in the immediate neighborhood and infection may be explained through the intermingling of children, etc.

Early and strict isolation of all cases is of the utmost importance in preventing the spread of this disease as large and frequent outbreaks occur where conditions favorable for its propagation are allowed to exist.

In this city all cases which remain at home are visited by a medical inspector of this department at once, and if isolation cannot be effectively carried out, the patient is removed to a hospital, either voluntarily or forcibly. Department nurses visit all these cases at frequent intervals, and insist that this isolation be constant until release.

PROGNOSIS.

Neglect upon the part of parents in sending for a physician long after the child was first noticed ill is quite apparent in

the histories of these cases. It was found that a wait of at least a day and a half occurred before medical advice was sought. In one of these cases, in spite of the fact that throat symptoms were present for over a week, no physician was called and the child died without any treatment. In this case cultures from the nose and throat taken after death showed abundant Klebs-Löffler bacilli present.

The prognosis in this disease depends upon its early recognition and proper use of antitoxin.

Doubtless many of the above deaths could have been avoided had the importance of "sore throat" been fully realized and an early diagnosis sought.

ERRONEOUS DIAGNOSIS BY PHYSICIANS.

That the disease may not always be recognized in its earliest manifestations, even by physicians, is proven by the fact that among this series of sixty-five deaths nineteen were diagnosed at first as being other than diphtheria; "heat," "tonsillitis," "gall stones," "stomach cold," "cold," "croup," and "ptomaine," were some of the early diagnoses in these cases by attending physicians. In one case the diagnosis of "quinsy sore throat" was made, poultices were applied and prompt incision performed. Apparently we have here a very large percentage of cases in which a wrong diagnosis had been made, and as this is a very important factor in regard to treatment it is obvious that it was quite detrimental to the interest and welfare of these patients. I am sure that this condition is one to be regretted very much for there can be no doubt but that these patients were placed in great jeopardy by this unwarranted delay upon the part of the physicians. Symptoms of sore throat, even of the mildest type, should awaken fully the interest of every physician. He should realize that great responsibility rests upon him in these cases and he should determine upon an early, correct diagnosis. Diphtheria of a very malignant type may develop suddenly from an insidious onset, and this fact should always be borne in mind in considering a diagnosis.

CULTURAL DIAGNOSIS.

A smear should be taken, as in a large percentage of cases this has been of great aid in arriving at an early diagnosis.

Cultures were taken in these cases on the day of first visit in but twelve patients. In twenty-four others at least one and a half days elapsed before this important aid was brought

into use. In twenty-nine cases no cultures were taken at all. Cultures taken in all of these cases would have rendered the diagnosis earlier and given these patients a better chance for life through the early administration of antitoxin. It seems strange that such a condition should exist in view of the fact that the Board of Health has culture stations distributed all over the city where these culture outfits may be obtained which are examined free of charge. Antitoxin is also distributed free at many of these stations. Innocent lives have been doubtless sacrificed through neglect in this matter.

Cultures should not only be taken early but should also be taken carefully. They should not be taken immediately after application of antiseptic solution to the nose and throat. If membrane is present, the edge or under surface is the proper place to apply the swab. If no membrane is present, the swab should be rubbed over the tonsils, pillars and pharyngeal wall. A culture from the nasal discharge should also be taken. If laryngeal symptoms are present, the swab should be taken as low down in the pharynx as is possible.

A culture should always be taken from a nasal discharge, especially if there exists excoriation about the nares.

DELAYED DIAGNOSIS.

Delay in diagnosis upon the part of the attending physician occurred in many of these cases, and was of considerable variation in the number of days. Investigation of these cases gave the following result:

DAY OF DIAGNOSIS AFTER FIRST VISIT.	First Day.	Second Day.	Third Day.	Fourth Day.	Fifth Day.	Sixth Day.	Eighth Day.
Number of cases.....	31	12	5	8	4	1	1

In two cases diagnosis was not made by the attending physician during life. This was also true in one case wherein no medical assistance was sought. Diagnosis in these cases was made post mortem by means of cultures taken from nose and throat. It is plainly evident that a diagnosis was made in about 50 per cent of these cases on the first day. There can be no doubt but that each twenty-four hours' delay in deciding upon the correct diagnosis lessened greatly the chances of recovery of these patients. If recognition of the disease had been made early here, and appropriate treatment administered, many undoubtedly would have recovered.

It is a well known fact that antitoxin given early will nearly

always prevent diphtheria from terminating fatally. This should be done at once upon the first visit of the physician. A delay should not occur until diagnosis has been confirmed by bacteriological tests. Introduction of antitoxin can do no harm in any case, and where a doubtful case proves to be positive it hastens greatly the termination of the disease. In the more virulent cases the attack is greatly modified and a fatal result avoided.

In this series there is evidence of marked neglect among the physicians in many of these cases. Total neglect is apparent in some cases, while serious delay occurred in others, thus jeopardizing greatly the lives of these innocent victims. It is common practice in cases referred to hospital to neglect giving antitoxin while at home. This custom should be stopped as precious time is lost in awaiting transportation to these institutions, which could well be utilized in combating the toxins constantly eliminated in this disease.

DELAYED TREATMENT.

These deaths were investigated in relation to delay by physicians in administering antitoxin. A separate division was made in regard to treatment of those which were referred to hospitals and of those which were treated at home.

Cases Referred to Hospital.

	First Visit.	One Day.	Two Days.	Three Days.	Four Days.	None Administered.	Unknown.
Duration of time, from first visit of physician to treatment with antitoxin.	4	3	1	2	1	29	2

We find here the large number of twenty-nine cases which received no antitoxin from the attending physician who referred the patient to hospital for treatment.

That the physician did not promptly refer these cases to the hospital may be seen from the following table:

	First Visit.	One Day.	Two Days.	Three Days.	Four Days.	Five Days.	Six Days.	Seven Days.
Duration of time from first visit of physician until sent to hospital.	17	6	6	3	6	2	1	1

What appears like an unwarranted delay is evident in many of these cases, and by referring to the previous table we find that much time was lost in awakening to the proper care of these patients.

The cases which were treated at home seem to fare about the same. The following table shows this in detail:

	No Antitoxin.	At First Visit.	One Day.	Two Days.	Three Days.	Four Days.
Duration of time from first visit of physician to administration of antitoxin.	4	7	7	1	2	2

This certainly is a condition which is not complimentary where faithful treatment is expected. Serious delay occurred here also, and in a few no antitoxin at all was administered, even though the disease was recognized.

LARYNGEAL DIPHTHERIA.

In our series here eighteen cases of laryngeal diphtheria were reported. Of this number twelve went to the hospital and six died at home. Investigation reveals the fact that in none of these cases treated at home was intubation performed. It is possible that there was no indication for this operation in any of these cases, but when it was not performed in a single instance it is at least suggestive of possible neglect.

IMMUNIZATION.

Out of a total of 277 persons directly exposed to these cases in but forty-four was immunization carried out. Investigation showed this was not due to objection upon the part of the exposed as but one person had refused. In most cases it was not even suggested by the attending physician.

Realizing the prophylactic effect of this treatment, it appears plain that great responsibility rests upon these physicians who neglect this important duty.

SUMMARY AND CONCLUSIONS.

Parents should become aware of the great danger from "sore throat." A physician should be called at once.

Physicians should realize the great responsibility that rests upon them in learning as early as possible the true diagnosis of every throat condition, however mild.

The assistance of smears and cultures should be used in arriving at an early diagnosis.

Laryngeal diphtheria should be promptly diagnosed and intubation practised if necessary.

Immunization should be carried out wherever possible.

The great importance of an early diagnosis in all cases of diphtheria should be appreciated and antitoxin used freely and without delay.

Every case of so-called "Croup" should be viewed with suspicion until the diagnosis of diphtheria has been positively eliminated.

Because of the great frequency of "Nasal Diphtheria," cultures should be taken in all cases of nasal discharge occurring in children and babies with "cold in the head."

When in doubt, give antitoxin, as no possible harm can be done, and much valuable time and possibly a life may be saved.

SUMMARY OF VITAL STATISTICS FOR THE MONTH OF MARCH, 1913.

Boston had 1,162 deaths in March, 1913, compared with 1,183 for March of last year; and a death rate of 18.60 against 19.34 for March, 1912. Deaths of nonresidents numbered 129 against 139 a year ago. Deducting deaths of nonresidents the corrected death rate for March, 1913 was 16.54 against 17.07 for March, 1912.

Of deaths from reportable diseases the principal increases were diphtheria, 14, tuberculous meningitis, 10, cerebro-spinal meningitis, 4, typhoid fever, 3.

Other important differences were as follows:

March, 1913, decreases compared with March, 1912:

"Other diseases"	24
Cancer	17
Apoplexy	12
Diarrhea and enteritis (under 2 years)	12
Puerperal septicemia	8
Suicide	6
Congenital debility and malformations	6
Appendicitis	5

March, 1913, increases compared with March, 1912:

Broncho-pneumonia	20
Violent deaths	14

Ward 11 had the lowest death rate, 9.58 and Ward 13 the highest, 24.64.

There were 12 less deaths under 1 year than in March, 1912, 15 more under 5 years, and 5 less over 60.

Total deaths under 1 year numbered 182, which is 14 less than the average number for March for the preceding 5 years.

Seventy-eight of these deaths were due to premature birth, congenital debility, malformations and other diseases peculiar to early infancy; 49 to pneumonia and broncho-pneumonia; 15 to reportable diseases, 14 to diarrhea and enteritis, and 26 to other causes.

Of these deaths under 1 year Ward 6 had the largest number, 21, and Ward 20 came next with 11.

One hundred and ten were over two weeks old and 62 of these were bottle fed.

GENERAL STATISTICS.

Population, Ward Area, Persons to Acre, and Rates.

	Land Area in Acres.	Population, 1910 Census.	Persons to Acre of Land. (Using Census Population.)	Population, Estimated, July 1, 1913.†	STILLBIRTHS EXCLUDED.		
					Death Rates, 1912. (Population, Estimated.)†	Birth Rates, 1911. (Population, Estimated.)†	Death Rates, 1912, of Children Under One Year, Per 1,000 Births, 1911.
* Boston.....	27,674	686,092	24.8	735,399	16.17	25.99	119.35
Wards 1.....	1,188	29,676	24.9	32,439	13.05	24.90	104.58
2.....	357	28,812	80.7	30,676	17.11	33.37	120.81
3.....	332	15,339	46.2	15,667	15.29	26.84	106.02
4.....	301	13,294	44.1	13,808	18.02	25.50	148.26
5.....	207	12,811	61.9	12,914	16.69	24.28	118.59
6.....	293	35,758	122.0	39,492	16.18	48.81	100.33
7.....	394	14,913	37.9	14,483	20.05	26.57	94.39
8.....	171	32,430	189.6	33,479	12.07	33.21	70.64
9.....	186	26,427	141.5	29,214	15.13	27.40	106.24
10.....	394	25,320	64.3	26,277	11.86	10.51	114.81
11.....	663	27,444	41.4	30,738	9.69	14.22	63.73
12.....	235	24,294	103.4	25,948	14.98	14.57	181.82
13.....	611	21,561	35.3	21,501	17.24	31.11	117.91
14.....	405	23,584	58.2	24,527	14.44	24.14	115.92
15.....	277	21,216	76.6	21,803	14.80	20.25	119.82
16.....	564	25,633	45.6	28,033	12.75	24.23	110.42
17.....	460	26,426	57.4	27,793	15.49	25.65	117.22
18.....	220	22,735	103.3	23,133	17.08	25.08	99.30
19.....	760	31,714	41.7	33,332	13.77	22.77	111.41
20.....	1,716	55,720	32.5	64,723	12.97	20.33	‡158.90
21.....	640	30,511	20.5	33,085	13.54	17.53	85.14
22.....	760	29,975	38.1	31,403	12.50	20.55	100.48
23.....	7,617	30,668	4.0	33,423	12.13	19.93	94.94
24.....	3,252	37,749	11.6	41,695	12.63	23.73	103.11
25.....	2,740	26,575	9.7	29,661	11.95	24.73	96.21
26.....	2,869	15,507	5.4	16,152	12.29	29.59	107.30

* Hyde Park was annexed to Boston January 1, 1912, and became Ward 26. Under "Boston," in the above table, Hyde Park statistics are included.

† Population estimated by arithmetical method, using the censuses of 1905 and 1910.

‡ An infant asylum is located in this ward.

March. General Summary.

* Population estimated by arithmetical method, using the censuses of 1905 and 1910.
† Nonresidents not included.

Total number (stillbirths excluded)		NATIVITY.	
	1,162	United States	710
		Ireland	176
SEX.		England and Wales	34
Males	621	Scotland	9
Females	541	Germany	21
		Canada	96
		Italy	21
CONDITION.		Russia and Poland	45
Single	531	Sweden and Norway	13
Married	405	France	4
Widowed	210	Other countries	20
Divorced	5	Unknown	13
Unknown	11		
		NATIVITY OF MOTHERS.	
		United States	314
		Ireland	363
		England and Wales	38
		Scotland	14
		Germany	31
		Canada	96
		Italy	74
		Russia and Poland	86
		Sweden and Norway	19
		France	5
		Other countries	38
		Unknown	84
COLOR.			
White	1,127		
Black (negro or mixed)	31		
Chinese	4		
Deaths of children:			
Under one year	182		
Under two years	235		
Under five years	288		
Stillbirths during the month,	63		

VITAL STATISTICS.

March, 1913.

Mortality by

Abridged List Class Number.	CAUSES OF DEATH.	TOTALS.		Under 1 Year.	1 Year.	2 Years.	3 Years.	4 Years.	Under 5 Years.	5 to 9 Years.	10 to 14 Years.	15 to 19 Years.
		1913.	1912.	Under 1 Year.	1 Year.	2 Years.	3 Years.	4 Years.	Under 5 Years.	5 to 9 Years.	10 to 14 Years.	15 to 19 Years.
	Total, all causes.....	1,162	1,183	182	53	28	18	7	288	25	11	18
		1913	1912	194	52	14	9	4	273	20	13	27
1	Typhoid fever.....	4	1									
3	Malarial fever.....											
4	Smallpox.....											
5	Measles.....	11	11	1	5	4	1		11			
6	Scarlet fever.....	4	3			1	1		2	1		1
7	Whooping cough.....	7	7	4	3				7			
8	Diphtheria and croup.....	25	11	4	2	3	5	3	17	5	2	
9	Influenza.....	7	5					1	1			
12	Other epidemic diseases.....	7	4	3					3			
13	Tuberculosis of the lungs.....	102	102	2	4		2		8		1	4
14	Tuberculous meningitis.....	15	5	4	4	2		1	11	1	1	
15	Other forms of tuberculosis.....	6	10							2	1	1
16	Cancer, malignant tumor.....	65	82									
17	Simple meningitis (except cerebro-spinal meningitis).....	7	4	4	2	1			7			
17a	Cerebro-spinal meningitis.....	7	3		1	1			2	1		1
18	Apoplexy and softening of the brain.....	50	62	1					1			
19	Organic heart diseases.....	163	166							6	3	3
20	Acute bronchitis.....	12	6	6	1				7			
21	Chronic bronchitis.....	4	9									
22	Pneumonia (except broncho-pneumonia).....	141	142	19	13	3	1	1	37			3
22a	Broncho-pneumonia.....	70	50	30	11	7	1		49	1		
23	Other respiratory diseases.....	9	6		1				1	1		
24	Diseases of the stomach (cancer excepted).....	7	5	1					1			
25	Diarrhea and enteritis (under two years).....	15	27	14	1				15			
26	Appendicitis and typhlitis.....	7	12									1
27	Hernia, intestinal obstruction.....	12	10		1				1			
28	Cirrhosis of liver.....	6	7									
29	Bright's disease and nephritis.....	83	78	1					1		1	
30	Diseases of women (not cancer).....	7	6									1
31	Puerperal septicemia.....	5	13									
32	Other puerperal diseases.....	6	9									
33	Congenital debility and malformations.....	54	60	54					54			
34	Old age.....		5									
35	Violent deaths.....	68	54	2		2	4	1	9		1	
36	Suicide.....	4	10									
37	Other diseases.....	169	193	31	4	4	3		42	7	1	3
38	Ill-defined causes.....	3	5	1					1			

VITAL STATISTICS.

Cause and Age.

March, 1913.

20 to 24 Years.	25 to 29 Years.	30 to 34 Years.	35 to 39 Years.	40 to 44 Years.	45 to 49 Years.	50 to 54 Years.	55 to 59 Years.	60 to 64 Years.	65 to 69 Years.	70 to 74 Years.	75 to 79 Years.	80 to 84 Years.	85 to 89 Years.	90 Years and over.	SEX.		Abridged List Class Number.
															Males.	Females.	
41 44	46 47	47 53	58 61	67 66	70 83	71 83	79 67	71 77	89 74	66 76	51 52	41 43	16 16	7 8	621 625	541 558	1
1	2			1											3	1	3
																	4
															5	6	5
															2	2	6
															2	5	7
									1						12	13	8
		1		2				2				1			4	3	9
		2	1						1						4	3	12
10	12	13	14	11	10	8	6	3	2						62	40	13
1	1														7	8	14
1		1	1												3	3	15
	3	4	5	4	5	8	13	7	10	2	3		1		23	42	16
															5	2	17
	2				1										1	6	17a
				3	3	2	3	2	5	11	7	8	3	2	19	31	18
4	4	2	6	6	11	16	22	18	20	13	14	12	2	1	79	84	19
							1		1	1	1		1		4	8	20
									1		2	1			1	3	21
3	3	8	9	16	12	7	4	11	11	7	4	4	2		91	50	22
1					6	1	1	2	1	4	2		1	1	35	35	22a
		1					1	2		2		1			2	7	23
1						1	1		2	1					3	4	24
															11	4	25
1	1	1	1			2									4	3	26
1			1	1	2	1	1		1	1	1		1		5	7	27
				1	2	1		1	1						4	2	28
2	3	3	4	4	7	5	12	10	10	12	4	4	1		49	34	29
3	1						2									7	30
1	3	1														5	31
	3	3														6	32
															34	20	33
																	34
6	3	4	7	8	4	8	1	1	4	3	2	1	3		52	16	35
	1		1	1				1							2	2	36
5	4	3	7	9	7	11	11	8	18	9	10	10	1	3	91	78	37
1			1												2	1	38

March, 1913.

VITAL STATISTICS.

Mortality by

Abridged List Class Number.	CAUSES OF DEATH.	Boston.	WARD RESIDENCE.										
			1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
	All causes.....	1,162	37	39	25	21	24	48	26	45	44	30	25
	Rates per 1,000 March, 1913	18.60	13.43	14.97	18.79	17.91	21.88	14.31	21.14	15.83	17.73	13.76	9.58
	population..... March, 1912	19.34	15.28	22.30	9.08	21.56	21.02	19.96	17.72	15.99	15.78	13.59	12.28
1	Typhoid fever.....	4	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....
3	Malarial fever.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
4	Smallpox.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
5	Measles.....	11	.....	.....	.....	.....	.....	3	1	.....	.....	2	.....
6	Scarlet fever.....	4	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	1
7	Whooping cough.....	7	.....	.....	.....	.....	.....	1	.....	1	.....	.....	.....
8	Diphtheria and croup.....	25	2	1	1	.....	.....	1	.....	1	1	1	.....
9	Influenza.....	7	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
12	Other epidemic diseases.....	7	.....	1	.....	.....	.....	.....	1	1	.....	.....	.....
13	Tuberculosis of the lungs.....	102	1	7	2	3	2	1	3	7	6	2	1
14	Tuberculous meningitis.....	15	.....	.....	.....	.....	.....	1	1	1	1	.....	.....
15	Other forms of tuberculosis....	6	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
16	Cancer, malignant tumor.....	65	1	1	1	.....	2	3	3	3	1	2	.....
17	Simple meningitis (except	7	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
17a	cerebro-spinal meningitis)....	7	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
18	Cerebro-spinal meningitis.....	7	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
18	Apoplexy and softening of the	50	.....	1	1	1	.....	1	1	4	2	2	1
19	brain.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
19	Organic heart diseases.....	163	6	5	4	3	4	.....	2	5	3	6	6
20	Acute bronchitis.....	12	.....	.....	.....	.....	.....	2	.....	1	2	.....	.....
21	Chronic bronchitis.....	4	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....
22	Pneumonia (except broncho-	141	1	2	7	5	5	13	2	5	7	3	1
22a	pneumonia).....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
22a	Broncho-pneumonia.....	70	2	4	.....	2	1	10	3	6	2	.....	2
23	Other respiratory diseases.....	9	.....	2	.....	.....	1	.....	.....	.....	.....	1	.....
24	Diseases of the stomach (cancer	7	.....	.....	.....	.....	.....	1	.....	.....	1	.....	.....
25	excepted).....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
25	Diarrhea and enteritis (under	15	.....	1	.....	.....	.....	1	.....	.....	.....	.....	1
26	two years).....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
26	Appendicitis and typhlitis....	7	1	.....	.....	.....	1	.....	.....	.....	.....	.....	.....
27	Hernia, intestinal obstruction,	12	.....	1	.....	1	.....	.....	1	.....	.....	.....	.....
28	Cirrhosis of liver.....	6	1	.....	.....	.....	.....	.....	1	.....	1	.....	.....
29	Bright's disease and nephritis..	83	4	1	1	.....	1	1	1	1	4	.....	6
30	Diseases of women (not cancer),	7	1	.....	.....	.....	.....	.....	.....	.....	1	.....	.....
31	Puerperal septicemia.....	5	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....
32	Other puerperal diseases.....	6	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
33	Congenital debility and mal-	54	1	2	3	1	.....	2	2	3	.....	4	1
34	formations.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
34	Old age.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
35	Violent deaths.....	68	3	3	1	1	2	1	1	.....	7	.....	1
36	Suicide.....	4	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....
37	Other diseases.....	169	10	7	4	3	4	5	3	3	5	5	4
38	Ill defined causes.....	3	.....	.....	.....	.....	1	.....	.....	2	.....	.....	.....
	Total deaths under one year..	182	5	6	3	2	2	21	10	10	5	5	4

Of deaths of non-residents from typhoid fever, measles, scarlet fever and diphtheria the following occurred occurred at sea.

VITAL STATISTICS.

Cause and Residence.

March, 1913.

WARD RESIDENCE.																Boston, Ward Unknown.	Nonresidents.	Unknown.	Abridged List Class Number.
12.	13.	14.	15.	16.	17.	18.	19.	20.	21.	22.	23.	24.	25.	26.					
39	45	40	33	34	48	40	60	82	48	31	49	53	39	17	3	129	8	....
17.70	24.64	19.20	17.82	14.28	20.33	20.36	21.19	14.92	17.08	11.62	17.26	14.97	15.48	12.39	....	....	....	....
12.04	18.60	16.52	18.51	15.96	16.34	21.49	18.29	19.77	18.96	15.59	18.08	11.05	17.64	17.71	....	....	....	....
1	....	....	....	....	....	....	1	....	....	....	....	....	....	....	....	1	....	1
....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	3
....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	4
....	....	....	1	....	2	....	....	1	....	....	....	....	....	....	....	1	....	5
....	....	....	....	1	1	....	....	....	....	....	....	....	....	....	....	....	....	6
....	1	1	....	1	....	....	....	1	....	....	....	....	....	....	....	....	1	7
....	1	1	1	1	....	2	3	3	2	1	....	....	....	....	....	2	....	8
....	2	....	....	....	....	....	....	3	....	....	1	....	....	....	....	....	....	9
....	....	....	....	....	2	....	....	1	....	....	....	1	....	....	....	....	....	12
3	7	4	3	1	7	1	4	5	....	3	4	6	3	2	1	13	....	13
....	1	2	....	....	....	....	1	1	....	....	....	....	3	....	....	3	....	14
....	....	....	....	....	....	1	....	....	....	....	....	1	1	....	....	3	....	15
2	....	2	2	4	3	....	4	7	4	7	3	2	3	....	....	5	....	16
....	2	....	....	....	....	1	....	....	....	1	....	....	....	....	....	1	....	17
....	....	....	....	....	....	1	....	....	2	....	....	....	1	1	....	2	....	17a
1	2	....	1	2	....	1	5	3	3	....	8	6	1	....	....	3	....	18
12	8	10	7	4	8	8	3	14	6	5	6	9	5	3	....	10	1	19
2	....	1	....	....	....	....	....	1	....	....	....	2	....	....	....	1	....	20
1	....	....	....	....	1	....	....	....	1	....	....	....	....	....	....	....	....	21
4	7	2	6	2	4	7	10	15	6	7	4	3	3	2	....	8	....	22
1	1	2	1	1	4	3	3	2	5	2	3	3	1	1	....	4	1	22a
....	....	....	....	....	....	....	....	....	1	....	1	....	1	....	....	2	....	23
....	....	....	....	....	....	1	....	1	....	....	....	1	....	1	....	1	....	24
....	1	....	....	....	2	1	....	1	....	1	....	1	....	....	....	5	....	25
....	....	....	....	....	....	....	1	1	....	....	....	....	....	....	....	3	....	26
1	....	....	1	....	....	....	....	....	1	....	1	....	....	....	....	5	....	27
1	....	....	....	....	1	....	....	....	....	1	....	....	....	....	....	....	....	28
1	5	4	3	5	4	3	9	8	4	....	4	1	4	3	....	5	....	29
....	....	....	....	....	....	....	....	....	....	....	1	....	....	....	....	4	....	30
....	....	....	....	....	....	1	1	....	....	....	....	1	....	....	....	1	....	31
....	....	1	1	....	....	1	1	....	....	....	1	....	....	....	....	1	....	32
2	2	....	1	....	3	2	3	3	....	....	3	4	3	1	....	8	....	33
....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	34
3	1	1	2	3	1	4	7	2	1	1	....	5	1	1	1	12	2	35
....	....	....	....	....	1	....	....	....	1	....	....	....	....	....	....	....	1	36
4	4	9	3	9	4	2	4	9	11	2	9	7	9	2	1	25	2	37	
....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	38
4	6	1	5	7	9	6	4	11	3	5	6	10	8	3	....	19	2	

among cases brought to Boston for treatment: Typhoid 1 and Diphtheria 2. The non-resident measles death

VITAL STATISTICS.

March, 1913, Infant Mortality.

Detailed List Class Number.	CAUSES OF DEATH.	MARCH TOTALS, UNDER 1 YEAR.		Under 1 Day.	1 to 2 Days.	2 to 3 Days.	3 Days to 1 Week.	1 to 2 Weeks.	2 to 3 Weeks.	3 Weeks to 1 Month.	1 to 2 Months.	2 to 3 Months.	3 to 6 Months.	6 to 9 Months.	9 to 12 Months.	AGED 2 WEEKS AND OVER.		Nonresidents.
		1913.	1912.													Breast Fed.	Bottle Fed.	
	Total.....	182	194	25	6	6	23	12	9	5	10	10	30	27	19	48	62	10
	Male.....	110	97	18	3	5	14	6	5	2	7	6	18	15	11	28	36	15
	Female.....	72	97	7	3	1	9	6	4	3	3	4	12	12	8	20	26	4
	White.....	177	186	26	6	6	23	12	9	5	10	10	30	24	18	47	59	18
	Colored.....	5	8	1										3	1	1	3	1
1	Typhoid fever.....																	
5	Smallpox.....																	
6	Measles.....	1	2												1		1	
7	Scarlet fever.....																	
8	Whooping cough.....	4	3								1	1	2			2	2	
9	Diphtheria and croup.....	4	1									1	1	1	1	1	3	
10	Influenza.....																	
14	Dysentery.....																	
18	Erysipelas.....	3	2						2	1						2	1	
19	Other epidemic diseases.....		1															
20	Pus-infection and septicemia.....		1															
24	Tetanus.....																	
28	Tuberculosis of the lungs....	2											1	1			2	1
29	Acute miliary tuberculosis....																	
30	Tuberculous meningitis.....	4											1	2	1	2	2	1
31 35	Other forms of tuberculosis..																	
36	Ricketts.....		1															
37	Syphilis.....	1	4	1														
38	Gonococcus infection.....																	
61	Simple meningitis.....	4	2				1	1			1		1			1	1	1
61a	Cerebro-spinal fever.....		1															
63a	Acute poliomyelitis.....																	
71	Convulsions.....	1	4												1		1	
76	Diseases of the ears.....		2															
79	Organic diseases of the heart,																	
89	Acute bronchitis.....	6	2						2		1	2	1			4	2	
91	Broncho-pneumonia.....	30	27			1	1	2	2	1	2	2	6	5	8	14	12	1
92	Pneumonia.....	19	15				1	1				2	3	7	5	10	7	1
93	Pleurisy.....		1															
103	Other diseases of stomach...	1	1											1			1	
104	Diarrhea and enteritis.....	14	24						1				7	6		2	12	4
108	Appendicitis and typhlitis...																	

VITAL STATISTICS.

March, 1913, Infant Mortality.—*Concluded.*

Detailed List Class Number.	CAUSES OF DEATH.	MARCH TOTALS, UNDER 1 YEAR.		Under 1 Day.	1 to 2 Days.	2 to 3 Days.	3 Days to 1 Week.	1 to 2 Weeks.	2 to 3 Weeks.	3 Weeks to 1 Month.	1 to 2 Months.	2 to 3 Months.	3 to 6 Months.	6 to 9 Months.	9 to 12 Months.	AGED 2 WEEKS AND OVER.		Nonresidents.
		1913.	1912.													Breast Fed.	Bottle Fed.	
109	Hernias, intestinal obstruction,		1															
117	Simple peritonitis.		1															
119	Acute nephritis.	1					1											
143	Furuncle.																	
144	Acute abscess.		1															
145	Other diseases of skin, etc.		1															
150a	Hydrocephalus.	1	1							1							1	1
b	Congenital malformations of heart.	9	8	5	2		1	1										
c	Other malformations.	3	4					1		1			1				1	1
151a	Premature birth.	32	32	11	2	3	6	2	2	2	1	1				4	4	3
b	Congenital debility.	9	14					1		1		3	3	1		1	7	3
152a	Injuries at birth.	12	10	6	2		3	1										
b	Other causes peculiar to early infancy.	12	14	2		1	8	1										2
167	Burns (conflagrations excepted).		1															
168	Absorption of deleterious gases,	2										1	1			2		
172	Traumatism by fall.																	
182	Homicide.																	
184																		
187	Ill-defined diseases.	1	3					1										
189	Other causes.	6	9			1	1				1		1	1		2	2	
	Breast fed *.	48	44						6	3	5	7	11	11	5	48		2
	Bottle fed *.	62	74						3	2	5	3	19	16	14		62	11
	Nonresidents.	19	13	1			3	2	2		2		6	3		2	11	19

* Aged two weeks and over.

Additional Deaths for Other Months.

- Jan., 1913.—1 male; broncho pneumonia; white; aged 67 years; condition unknown; residence unknown; birthplace unknown; birthplace of mother unknown.
- 1 male; Bright's disease; white; aged 50 years; condition unknown; residence Ward 8; born in Ireland; mother born in Ireland.
- Feb., 1913.—1 male; angina pectoris; white; aged 30 years; condition unknown; residence Ward 9; born in United States; birthplace of mother unknown.
- 1 female; organic disease of heart; white; aged 68 years; widow; residence Ward 2; born in Ireland; mother born in Ireland.
- 1 female; pneumonia; white; aged 38 years; married; residence Ward 7; born in United States; mother born in Ireland.
- 1 female; other diseases of stomach (cancer excepted); white; aged 62 years; widow; residence Ward 20; born in Ireland; birthplace of mother unknown.
- 1 female; burns (conflagration excepted); white; aged 1 year; single; residence Ward 9; born in United States; mother born in Russia or Poland.
- 1 male; nonvenereal diseases of the male genital organs; white; aged 22 years; condition unknown; residence unknown; born in Italy; mother born in Italy.
- 1 male; accidental fall; white; aged 76 years; widower; residence Ward 19; born in United States; mother born in United States.
- 1 male; accidental fall; white; aged 23 years; married; residence Ward 21; born in United States; mother born in Germany.
- 1 male; accidental fall; white; aged 48 years; married; residence Ward 20; born in United States; birthplace of mother unknown.
- 1 male; sudden death; white; aged 50 years; condition unknown; residence Ward 13; birthplace unknown; birthplace of mother unknown.

**DIVISION OF COMMUNICABLE DISEASES,
March, 1913.**

Medical Inspectors.

New cases visited:

Diphtheria:

<i>a.</i> Isolation	122
<i>b.</i> Diagnosis	21

Scarlet fever:

<i>a.</i> Isolation	174
<i>b.</i> Diagnosis	46
<i>c.</i> Release	34

Measles:

<i>a.</i> Isolation	13
<i>b.</i> Diagnosis	7

Smallpox	0
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Varicella:

<i>a.</i> Isolation	0
<i>b.</i> Diagnosis	7

Ophthalmia neonatorum	12
---------------------------------	----

Tuberculosis	52
------------------------	----

Typhoid fever	13
-------------------------	----

Deaths investigated	15
-------------------------------	----

Vaccinations performed	2
----------------------------------	---

Certificates of vaccination issued	1
--	---

Nurses.

New cases visited:

Diphtheria	183
----------------------	-----

Scarlet fever	194
-------------------------	-----

Measles	992
-------------------	-----

Varicella	120
---------------------	-----

Typhoid fever	12
-------------------------	----

Whooping cough	150
--------------------------	-----

Ophthalmia neonatorum	75
---------------------------------	----

Mumps	15
-----------------	----

Cerebro-spinal meningitis	3
-------------------------------------	---

Trachoma	1
--------------------	---

Released cultures taken for diphtheria	151
--	-----

Old cases visited:

Diphtheria	237
Scarlet fever	439
Measles	159
Varicella	2
Typhoid fever	35
Whooping cough	4
Ophthalmia neonatorum	159
Mumps	0
Cerebro-spinal meningitis	6

Disinfections.

Diphtheria	180
Scarlet fever	177
Tuberculosis	192
Infected books, etc.	19 lots
Infected carriages, etc.	2
Infected clothing	1 lot

Forcible Removals.

Tuberculosis	4
Scarlet fever	1
Diphtheria	0
Typhoid fever	0
Specific	1

DIVISION OF

March, 1913. Cases Reported.

WARDS.	Anterior Poliomyelitis.	Actinomycosis.	Asiatic Cholera.	Bubonic Plague.	Cerebro-spinal Meningitis.	Diphtheria.	Glanders.	Leprosy.	Malaria.	Malignant Fistule.	Measles.	Mumps.	Ophthalmia Neonatorum.
1.....						8					3		3
2.....						11					7	4	10
3.....						7					5	3	2
4.....						1					21	2	1
5.....						3					9	1	2
6.....						14					53	42	14
7.....						6		1			20	2	1
8.....						16					72	4	19
9.....						7					39	6	9
10.....						1					55	1	1
11.....						5					110	5	1
12.....						13					44	5	5
13.....					1	8					14	2	3
14.....					1	5					40	9	6
15.....						3					7	8	3
16.....						1					84	14	2
17.....						7					48	5	3
18.....						16					24	2	2
19.....						7					13	4	4
20.....					1	16					218	11	8
21.....					1	15					64	4	2
22.....						9					50		2
23.....						6					75	1	1
24.....						2					65	1	
25.....					1	5					8	11	
26.....					1	2					5		
Total.....					6	194		1			1,153	147	104
Unknown.....													
Nonresidents.....						7					3		5
Grand total.....					6	201		1			1,156	147	109
Corresponding month last year..	4				6	127				2	744	39	112

Included in the nonresidents were the following cases, brought to Boston

COMMUNICABLE DISEASES.

Cases Reported.

March, 1913.

Scarlet Fever.	Smallpox.	Tetanus.	Trachoma.	Trichinosis.	Tuberculosis (Pulmonary and Miliary).	Tuberculosis (Other Forms).	Typhoid Fever.	Typhus Fever.	Varicella.	Whooping Cough.	Yellow Fever.	WARDS.
10	4	1	.....	.....	1	8	.....	1
7	24	2	3	.....	1	6	.....	2
4	3	.....	.....	.....	3	3	.....	3
1	5	.....	.....	.....	7	4	.....	4
.....	9	.....	.....	.....	5	.....	.....	5
4	2	.....	13	1	5	.....	3	21	.....	6
1	2	.....	27	.....	1	.....	1	7	.....	7
12	2	.....	24	4	1	.....	9	8	.....	8
8	17	1	.....	.....	6	15	.....	9
7	9	2	.....	.....	6	2	.....	10
5	8	1	.....	.....	11	1	.....	11
7	10	.....	2	.....	1	5	.....	12
7	14	2	.....	.....	6	10	.....	13
10	6	2	.....	.....	5	11	.....	14
1	11	1	.....	.....	9	4	.....	15
13	4	1	.....	.....	12	17	.....	16
7	9	.....	.....	.....	7	3	.....	17
4	9	.....	.....	.....	9	22	.....	18
11	13	1	1	.....	1	1	.....	19
22	15	.....	.....	.....	24	11	.....	20
13	11	1	.....	.....	8	6	.....	21
10	9	1	.....	.....	3	5	.....	22
11	7	.....	.....	.....	5	2	.....	23
22	13	.....	.....	.....	8	7	.....	24
13	1	.....	10	2	.....	.....	8	20	.....	25
3	4	5	.....	.....	1	.....	.....	26
213	7	.....	288	28	13	.....	160	199	.....	Total
.....	Unknown
10	7	.....	14	4	1	.....	1	1	.....	Nonresidents
223	14	.....	302	32	14	.....	161	200	.....	Grand total
127	2	3	278	32	17	.....	212	102	.....	Corresponding month last year.

for treatment: typhoid fever, 1; diphtheria, 7; scarlet fever, 10; measles, 1.

DIVISION OF CHILD HYGIENE.—MARCH, 1913.

1. Medical Inspection of Schools.

Number inspections made	17,147
Number physical examinations made	9,503
Number visits made to homes	97

There were 1,343 pupils excluded from schools, ill with the following diseases:

Diphtheria	1	Gonorrhœa	1
Scarlet fever	5	Pediculosis	659
Measles	18	Acute or purulent conjunc-	
German measles	4	tivitis	50
Chicken pox	22	Ringworm	37
Whooping cough	11	Scabies	27
Mumps	70	Impetigo	60
Pulmonary tuberculosis	2	Erysipelas	1
Acute tonsilitis	118	Miscellaneous	250
Influenza	7		

There were 13,645 cases of noncontagious disease found during the month, subdivided as follows:

Diseases of oral and respiratory tract	3,301
Diseases of ear	150
Diseases of eye	513
Diseases of skin	669
Dental caries	3,289
Miscellaneous	5,723

2. Physical Examination of Licensed Minors.

There were 122 girls and 173 boys between the ages of 14 and 16 years examined during the month. Eighty-one were found to be without defects and 214 with defects as follows:

Hearing	1	Pulmonary disease	1
Eyesight	27	Cardiac disease	4
Defective nasal breathing	7	Orthopedic defects	6
Hypertrophied Tonsils	8	Skin	2
Defective teeth	198	Miscellaneous	39

Eight certificates were withheld at this time.

3. Pre-Natal and Post-Natal Work.

Pre-Natal.

Number cases	32	Number babies breast-fed	9
Number visits	53	Number babies bottle-fed	2
Number babies born	11		

Mothers attended as follows:

Family physician	7	Midwife	1
Hospital	3		

Post-Natal.

Number cases	1,682	Bottle-fed	188
Number visits	3,412	Breast and bottle fed	142
Breast-fed	1,289		

Sixty-three babies were not found, on account of change of address.

BACTERIOLOGICAL LABORATORY.

DIPHTHERIA:			GONORRHEA:		
Positive for diagnosis....	192		Positive.....	45	
Positive for release.....	112		Negative.....	151	
Negative for diagnosis....	1,390		Unsatisfactory.....	0—	193
Negative for release.....	299		GONORRHEAL OPTHALMIA:		
"No growth" cultures....	21—	2,014	Positive.....	1	
TUBERCULOSIS:			Negative.....	45	
Positive.....	87		Unsatisfactory.....	0—	46
Negative.....	517		OTHER EXAMINATIONS:		
Unsatisfactory.....	0—	604	*Positive.....	6	
TYPHOID:			Negative.....	37	
Positive.....	4		Unsatisfactory.....	1—	44
Negative.....	103		BACTERIOLOGICAL MILK		
Atypical.....	6—	113	EXAMINATIONS.....		634
GLANDERS:			Total.....		3,653
Positive.....	0				
Negative.....	2				
Unsatisfactory.....	0—	2			

* K-L Vir. T. B. pus, organisms, typhoid conradi, malaria, G-U. T. B., paratyphoid, leprosy, anthrax.

INSPECTION OF MILK, VINEGAR, ETC.

Examination as to Statute Requirements.

Samples examined, milk from stores.....	743
" " " milk from wagons.....	638
" " " milk brought in by citizens.....	11
" " " milk for bacteriological examination.....	634
" " " vinegar.....	111
" " " butter and cheese.....	146
Total samples.....	2,283

INSPECTED AT BRIGHTON ABATTOIR.

Cattle inspected.....	149	Calves condemned (39 whole).....	1,330 lbs.
Calves inspected.....	1,838	Sheep condemned.....	— lbs.
Sheep inspected.....	—	Swine condemned (5 whole).....	589 lbs.
Swine inspected.....	4,143	Swine condemned (parts of 344).....	2,839 lbs.
Cattle condemned (parts of 23).....	827 lbs.		

INSPECTION OF PROVISIONS.—ARTICLES CONDEMNED.

Meats.

Veal (immature).....	1,001 lbs.
Mutton (tainted).....	19 lbs.
Beef (tainted).....	185 lbs.
Pork (tainted).....	177 lbs.
Poultry (tainted).....	212 lbs.

Miscellaneous.

Candies.....	23 lbs.
Vegetables (miscellaneous)....	1 bush.
Oranges (decayed).....	396 boxes

SANITARY INSPECTION DIVISION.

New reports.....	3,646
Reinspections.....	*14,265
New tenement house reports.....	222
Nuisances reported.....	6,692
Legal notices.....	519
Court cases.....	20
Fines.....	\$138
Tenements vacated.....	5
Milk applications approved.....	138
Stable permit granted.....	1
Dump permits granted.....	4
Dump permit refused.....	1
Dump permit revoked.....	1

* Includes 4,500 special inspections of places licensed to sell milk because of yearly license applications.

QUARANTINE.

Vessels inspected at quarantine.....	61
Total immigrants arriving in Boston.....	5,111

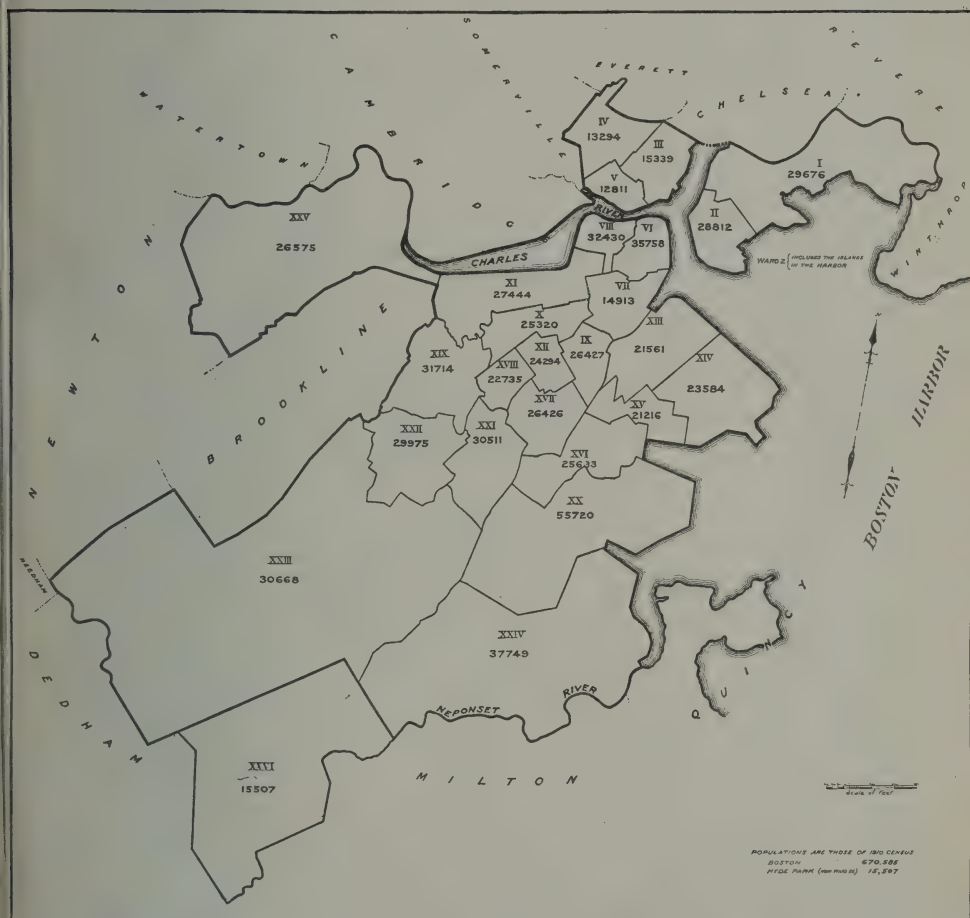
MONTHLY METEOROLOGICAL SUMMARY.
Taken at Weather Bureau, Boston, March, 1913.

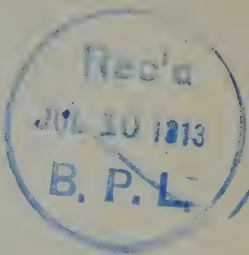
DAY.	TEMPERATURE, DEGREES FAHRENHEIT.			Relative Humidity.	Daily Precipitation.	Actual Hours Sun- shine.	WIND.		
	Maximum.	Minimum.	Mean.				Average Hourly Velocity. (Miles.)	Maximum Velocity. (Miles.)	Prevailing Direction.
1.....	46	38	42	90	.22	0	7.1	14	W.
2.....	45	22	34	70	.04	3.8	14.5	43	W.
3.....	39	19	29	53	0	5.5	13.4	24	W.
4.....	37	30	34	86	T	0	7.0	11	E.
5.....	42	30	36	85	0	7.0	7.0	14	N. W.
6.....	44	19	32	75	.20	2.5	14.1	37	W.
7.....	22	11	16	49	0	11.5	23.9	36	W.
8.....	34	10	22	44	0	11.4	10.7	17	S. W.
9.....	62	27	44	62	0	9.8	15.2	38	S. W.
10.....	52	39	46	66	0	8.1	10.3	22	S. E.
11.....	42	37	40	96	.39	0	7.5	15	E.
12.....	45	36	40	63	0	11.8	8.7	15	E., N. W.
13.....	54	37	46	82	T	3.9	7.9	15	S.
14.....	60	38	49	69	.64	0	8.3	20	S. W.
15.....	66	56	61	94	T	3.6	13.8	28	S. W.
16.....	61	31	46	92	.31	1.3	11.1	29	W.
17.....	42	27	34	58	0	10.2	16.6	28	W.
18.....	50	25	38	49	0	11.4	12.5	26	S. W.
19.....	68	38	53	64	0	12.1	16.5	26	S. W.
20.....	57	43	50	96	.41	0	5.6	14	S. W.
21.....	68	54	61	93	.13	8.0	14.6	26	S. W.
22.....	59	33	46	82	0	12.2	18.0	35	W.
23.....	48	30	39	70	0	10.1	9.4	21	W.
24.....	68	42	55	73	.01	7.8	23.5	46	S. W.
25.....	73	40	56	92	.61	3.9	17.5	36	S. W.
26.....	43	36	40	98	.56	0	11.6	23	N. E.
27.....	67	35	51	84	1.13	0	19.6	42	S. W.
28.....	44	30	37	60	0	12.5	15.8	30	W.
29.....	43	28	36	52	0	11.7	9.2	18	S. E.
30.....	62	35	48	73	0	8.8	12.8	21	S.
31.....	66	44	55	94	.16	4.0	17.8	30	S.
Totals.....	—	—	—	—	4.81	192.9	—	—	—
Means.....	51.9	32.9	42.5	74.6	0.16	52%	13.0	24th	S. W.

Latitude 42 degrees 21 minutes.

Longitude 71 degrees 4 minutes.

BOSTON WARD MAP.





MONTHLY BULLETIN

OF THE

HEALTH DEPARTMENT

OF THE

CITY OF BOSTON



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ORGANIZATION OF THE HEALTH DEPARTMENT

FRANCIS X. MAHONEY, M. D., *Chairman.*

P. H. MULLOWNEY, M. D. V.

F. H. SLACK, M. D., *Secretary.*

MONTHLY BULLETIN

OF THE

HEALTH DEPARTMENT OF THE CITY OF BOSTON.

All communications relating to this publication should be addressed to
BULLETIN OF THE HEALTH DEPARTMENT, 100 Summer St., Boston.

VOL. 2.

BOSTON, APRIL, 1913.

NO. 4.

SUMMARY OF VITAL STATISTICS FOR THE MONTH OF APRIL, 1913.

Boston had 1,002 deaths in April, 1913, compared with 1,039 for April of last year; and a death rate of 16.58 against 17.56 for April, 1912. Deaths of nonresidents numbered 125 against 96 a year ago. Deducting deaths of nonresidents the corrected death rate for April, 1913 was 14.51 against 15.93 for April, 1912.

Of deaths from reportable diseases the principal decreases were tuberculosis (all forms) 15; typhoid fever, 2; and cerebro-spinal meningitis, 2.

The principal increases were scarlet fever, 9; diphtheria, 4; and whooping cough, 3.

Other important differences were as follows:

April, 1913, decreases compared with April, 1912:

Organic heart disease, brights disease and nephritis	18
Apoplexy	8
Pneumonia	7
Appendicitis	5
Violent deaths	4

April, 1913, increases compared with April, 1912:

Congenital debility and malformations	10
Hernia and intestinal obstruction	8
Diarrhea and enteritis (under 2 years)	5

Ward 23 had the lowest death rate, 8.37 and Ward 7 the highest, 21.

There were 10 more deaths under 1 year than in April, 1912, 19 more under 5 years, and 1 less over 60.

The total deaths under 1 year numbered 169, which is 5 less than the average number for April for the preceding 5 years.

Seventy-three of these deaths were due to premature birth, congenital debility, malformations and other diseases peculiar to early infancy; 31 to pneumonia and broncho-pneumonia; 25 to diarrhea and enteritis; 17 to reportable diseases; and 23 to other causes.

Of these deaths under 1 year Ward 6 had the largest number, 13, and Ward 1 and 8 came next with 11 each.

One hundred and ten were over two weeks old and 75 of these were bottle fed.

VITAL STATISTICS.

GENERAL STATISTICS.

Population, Ward Area, Persons to Acre, and Rates.

	Land Area in Acres.	Population, 1910 Census.	Persons to Acre of Land. (Using Census Population.)	Population, Estimated, July 1, 1913.†	STILLBIRTHS EXCLUDED.		
					Death Rates, 1912. (Population, Estimated.)†	Birth Rates, 1911. (Population, Estimated.)†	Death Rates, 1912, of Children Under One Year, Per 1,000 Births, 1911.
* Boston.....	27,674	686,092	24.8	735,399	16.17	25.99	119.35
Wards 1.....	1,188	29,676	24.9	32,439	13.05	24.90	104.58
2.....	357	28,812	80.7	30,676	17.11	33.37	120.81
3.....	332	15,339	46.2	15,667	15.29	26.84	106.02
4.....	301	13,294	44.1	13,808	18.02	25.50	148.26
5.....	207	12,811	61.9	12,914	16.69	24.28	118.59
6.....	293	35,758	122.0	39,492	16.18	48.81	100.33
7.....	394	14,913	37.9	14,483	20.05	23.57	94.39
8.....	171	32,430	189.6	33,479	12.07	33.21	70.64
9.....	186	26,427	141.5	29,214	15.13	27.40	106.24
10.....	394	25,320	64.3	26,277	11.86	10.51	114.81
11.....	663	27,444	41.4	30,738	9.69	14.22	63.73
12.....	235	24,294	103.4	25,948	14.98	14.57	181.82
13.....	611	21,561	35.3	21,501	17.24	31.11	117.91
14.....	405	23,584	58.2	24,527	14.44	24.14	115.92
15.....	277	21,216	76.6	21,803	14.80	20.25	119.82
16.....	564	25,633	45.6	28,033	12.75	24.23	110.42
17.....	460	26,426	57.4	27,793	15.49	25.65	117.22
18.....	220	22,735	103.3	23,133	17.08	25.08	99.30
19.....	760	31,714	41.7	33,332	13.77	22.77	111.41
20.....	1,716	55,720	32.5	64,723	12.97	20.33	‡158.90
21.....	640	30,511	20.5	33,085	13.54	17.53	85.14
22.....	760	29,975	38.1	31,403	12.50	20.55	100.48
23.....	7,617	30,668	4.0	33,423	12.13	19.93	94.94
24.....	3,252	37,749	11.6	41,695	12.63	23.73	103.11
25.....	2,740	26,575	9.7	29,661	11.95	24.73	96.21
26.....	2,869	15,507	5.4	16,152	12.29	29.59	107.30

* Hyde Park was annexed to Boston January 1, 1912, and became Ward 26. Under "Boston," in the above table, Hyde Park statistics are included.

† Population estimated by arithmetical method, using the censuses of 1905 and 1910.

‡ An infant asylum is located in this ward.

VITAL STATISTICS.
April. General Summary.

	1913.	1912.
Total deaths	1,002	1,039
Population, estimated*	735,399	720,031
Death rate per 1,000	16.58	17.56
Deaths of nonresidents	125	96
Corrected death rate†	14.51	15.93

* Population estimated by arithmetical method, using the censuses of 1905 and 1910.

† Nonresidents not included.

April, 1913. Statement of Deaths.

Total number (stillbirths ex- cluded) 1,002		NATIVITY.	
SEX.		United States	622
		Ireland	158
Males 510		England and Wales	29
		Scotland	14
Females 492		Germany	12
		Canada	77
CONDITION.		Italy	19
		Russia and Poland	32
Single 494		Sweden and Norway	12
		France	2
Married 308		Other countries	20
		Unknown	5
Widowed 188		NATIVITY OF MOTHERS.	
		United States	290
Divorced 4		Ireland	279
		England and Wales	34
Unknown 8		Scotland	20
		Germany	16
COLOR.		Canada	92
		Italy	73
White 964		Russia and Poland	61
		Sweden and Norway	12
Black (negro or mixed) 33		France	3
		Other countries	30
Chinese 5		Unknown	92
Deaths of children:			
Under one year 169			
Under two years 210			
Under five years 257			
Stillbirths during the month, 66			

VITAL STATISTICS.

April, 1913.

Mortality by

Abridged List Class Number.	CAUSES OF DEATH.	TOTALS.		Under 1 Year.	1 Year.	2 Years.	3 Years.	4 Years.	Under 5 Years.	5 to 9 Years.	10 to 14 Years.	15 to 19 Years.
		1913.	1912.									
	Total, all causes.....	1,002	1,039	169	41	23	18	6	257	29	16	17
		1913	1912	159	54	16	5	4	238	19	9	22
1	Typhoid fever.....		2									
3	Malarial fever.....											
4	Smallpox.....											
5	Measles.....	14	13	2	7	1	2	1	13	1		
6	Scarlet fever.....	13	4	1	1	1	4	1	8	4	1	
7	Whooping cough.....	13	10	5	3	3		1	12	1		
8	Diphtheria and croup.....	13	9	2		3	3		8	4	1	
9	Influenza.....	1	5									
12	Other epidemic diseases.....	3	6									
13	Tuberculosis of the lungs.....	88	109	3	2	1	1		7		1	5
14	Tuberculous meningitis.....	12	10	4	2	3			9	2	1	
15	Other forms of tuberculosis.....	5	1			1			1			1
16	Cancer, malignant tumor.....	62	64							1		1
17	Simple meningitis (except cerebro-spinal meningitis).....	7	7	3			1		4			
17a	Cerebro-spinal meningitis.....	2	4			1			1			
18	Apoplexy and softening of the brain.....	53	61	1					1			
19	Organic heart diseases.....	139	153							2	4	3
20	Acute bronchitis.....	5	6	3					3			
21	Chronic bronchitis.....	4	2									
22	Pneumonia (except broncho-pneumonia).....	98	105	10	9	1	1	1	22	1	1	2
22a	Broncho-pneumonia.....	54	52	21	9	2		2	34	1	1	
23	Other respiratory diseases.....	7	8	1	1		2		4			
24	Diseases of the stomach (cancer excepted).....	7	11							1		
25	Diarrhea and enteritis (under two years).....	28	23	25	3				28			
26	Appendicitis and typhlitis.....	4	9									
27	Hernia, intestinal obstruction.....	12	4	2					2			
28	Cirrhosis of liver.....	3	5									
29	Bright's disease and nephritis.....	70	74							1	2	
30	Diseases of women (not cancer)...	7	6									
31	Puerperal septicemia.....	5	5									
32	Other puerperal diseases.....	6	4									1
33	Congenital debility and malformations.....	61	51	61					61			
34	Old age.....	1	4									
35	Violent deaths.....	42	46	2	1	5	3		11	5		
36	Suicide.....	9	11									1
37	Other diseases.....	152	152	22	3	1	1		27	5	3	3
38	Ill-defined causes.....	2	3	1					1		1	

VITAL STATISTICS.

Cause and Age.

April, 1913.

20 to 24 Years.	25 to 29 Years.	30 to 34 Years.	35 to 39 Years.	40 to 44 Years.	45 to 49 Years.	50 to 54 Years.	55 to 59 Years.	60 to 64 Years.	65 to 69 Years.	70 to 74 Years.	75 to 79 Years.	80 to 84 Years.	85 to 89 Years.	90 Years and over.	SEX.		Abridged List Class Number.
															Males.	Females.	
38 32	43 37	33 52	46 69	37 51	65 60	52 74	63 69	72 69	77 76	59 57	40 56	31 26	20 13	7 10	510 523	492 516	1
																	3
																	4
															9	5	5
															6	7	6
															7	6	7
															11	2	8
											1					1	9
		1	1	1											2	1	12
8	13	8	12	7	11	8	3	5							58	30	13
															4	8	14
	3														3	2	15
	1	1	1	3	6	7	15	6	11	4	1		4		25	37	16
1		1			1										3	4	17
						1									1	1	17a
					5	5	6	4	6	12	4	8	1	1	23	30	18
3	5	2	6	4	8	9	11	14	26	16	10	9	6	1	54	85	19
									1	1					5		20
										2	2					4	21
4	3	5	6	4	9	3	5	9	11	4	3	2	1	3	52	46	22
	1		2			3	1	2	1	2	3	2	1		29	25	22a
	1		1			1									5	2	23
2	1			2		1									3	4	24
															17	11	25
1				1				2							1	3	26
						2	1	1	1	1	3		1		7	5	27
					2	1									3		28
5	2	4	2	5	7	1	9	13	7	4	4	2	2		32	38	29
	2	2	1		2											7	30
2	3															5	31
3	1			1												6	32
															30	31	33
														1		1	34
1	2	3	3	2	3	3	2		3	1	1	1	1		27	15	35
3	1		1	1	1			1							7	2	36
5	4	6	10	6	10	7	10	15	10	12	8	7	3	1	86	66	37
																2	38

VITAL STATISTICS.

April, 1913.

Mortality by

Abridged List Class Number.	CAUSES OF DEATH.	Boston.	WARD RESIDENCE.										
			1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
	All causes.....	1,002	38	34	23	21	16	45	25	42	39	27	27
	Rates per 1,000 popula- tion.....	{ 1913 16.58 1912 17.56	14.25 13.49	13.49 16.17	17.86 13.29	18.50 18.72	15.07 16.06	13.86 22.54	21.00 20.81	15.26 12.11	16.24 16.31	12.50 10.77	10.69 13.10
1	Typhoid fever.....												
3	Malarial fever.....												
4	Smallpox.....												
5	Measles.....	14	1	2	1			2	2				
6	Scarlet fever.....	13	1	1	1			2					
7	Whooping cough.....	13						3		1			
8	Diphtheria and croup.....	13		2		2		1			1		
9	Influenza.....	1											
12	Other epidemic diseases.....	3											
13	Tuberculosis of the lungs.....	88	5	3	1	3	2	4	3	6	4	3	2
14	Tuberculous meningitis.....	12									1		
15	Other forms of tuberculosis....	5						1	1	1			
16	Cancer, malignant tumor.....	62	1	2	1	1	1	4	2	2	1	3	1
17	Simple meningitis (except cerebro-spinal meningitis)....	7					1	1		1			
17a	Cerebro-spinal meningitis.....	2									1		
18	Apoplexy and softening of the brain.....	53				1	2		2	1	3	1	2
19	Organic heart diseases.....	139	7	4	5	1	1	3	1	5	6	4	6
20	Acute bronchitis.....	5	1					1				1	
21	Chronic bronchitis.....	4											
22	Pneumonia (except broncho- pneumonia).....	98	4	3	3	3	2	9	4	5	8	6	4
22a	Broncho-pneumonia.....	54	4	2		1	1	8	3	6	2		
23	Other respiratory diseases.....	7					1			1			
24	Diseases of the stomach (cancer excepted).....	7								1			
25	Diarrhea and enteritis (under two years).....	28	2	1	1	1		1	1	1		1	
26	Appendicitis and typhlitis.....	4											
27	Hernia, intestinal obstruction.....	12								1			
28	Cirrhosis of liver.....	3	1										
29	Bright's disease and nephritis..	70	4	1	3	3	2	1	2	2		1	5
30	Diseases of women (not cancer).....	7										1	
31	Puerperal septicemia.....	5											
32	Other puerperal diseases.....	6							1		1		
33	Congenital debility and mal- formations.....	61	3	1	2	2	2	3		3		1	
34	Old age.....	1											
35	Violent deaths.....	42	2	2		1				2	4		1
36	Suicide.....	9											2
37	Other diseases.....	152	2	9	5	2	1		3	3	7	5	4
38	Ill defined causes.....	2		1									
	Total deaths under one year..	169	11	8	4	6	2	13	3	11	2	3	2

Of deaths of nonresidents from typhoid fever, measles, scarlet fever and diphtheria the

VITAL STATISTICS.

Cause and Residence.

April, 1913.

WARD RESIDENCE.																Boston, Ward Unknown.	Nonresidents. Unknown.	Abridged List Class Number.
12.	13.	14.	15.	16.	17.	18.	19.	20.	21.	22.	23.	24.	25.	26.				
40	29	35	29	37	37	32	34	65	43	37	23	41	28	14	2	125	14	...
18.76	16.41	17.33	16.18	16.06	16.20	16.83	12.41	12.22	15.81	14.34	8.37	11.96	11.49	10.55	...	...	...	...
17.22	18.09	15.06	18.01	16.94	16.45	18.51	16.31	16.51	14.70	12.97	12.33	14.43	16.96	18.31	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	4
...	...	...	1	4	...	...	...	...	1	...	...	...	...	...	...	...	...	5
1	...	2	...	...	...	1	1	...	...	1	...	...	...	...	...	2	...	6
...	4	...	1	...	2	...	...	1	...	...	...	...	1	...	...	...	...	7
...	...	1	...	...	1	1	1	1	...	2	...	...	...	...	...	...	...	8
...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	9
...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...	12
4	3	3	2	2	7	3	1	6	2	...	1	2	1	...	...	13	2	13
...	...	2	...	1	2	...	1	...	...	2	...	...	...	...	...	3	...	14
...	...	...	...	1	...	...	...	...	...	...	...	...	1	...	...	...	...	15
4	...	2	2	1	1	...	1	8	3	2	3	3	2	1	...	10	...	16
...	...	...	...	...	...	2	...	...	1	...	...	...	...	...	...	1	...	17
...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	17a
2	3	3	1	2	2	3	2	5	2	2	4	3	...	1	...	6	...	18
4	3	9	6	6	3	1	3	7	9	9	3	11	4	3	...	14	1	19
1	...	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	20
...	...	...	1	...	...	...	...	2	...	1	...	...	...	...	...	...	...	21
5	...	2	3	3	1	3	1	6	1	4	3	1	2	4	...	8	...	22
5	2	1	...	...	3	2	1	4	3	1	1	2	1	...	...	...	1	22a
...	...	...	...	...	...	1	...	2	...	...	...	...	...	...	...	2	...	23
...	...	...	...	...	1	...	1	...	...	...	...	1	...	...	...	3	...	24
...	1	...	...	...	1	1	1	1	1	...	2	1	1	...	...	5	4	25
...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	3	...	26
...	1	...	...	2	...	...	...	2	1	...	1	1	...	...	...	2	...	27
...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	1	28
3	4	...	1	2	2	1	2	6	3	7	...	1	4	1	1	7	1	29
1	...	...	...	...	...	...	1	...	...	...	...	...	1	...	...	3	...	30
...	2	...	...	...	...	1	...	...	1	...	...	1	...	...	...	...	...	31
...	...	...	...	...	...	1	...	...	...	...	1	...	...	...	...	2	...	32
4	1	2	2	2	4	3	4	3	2	2	2	5	1	...	...	7	...	33
...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	34
1	2	3	2	2	2	...	2	3	1	1	...	...	1	...	...	9	1	35
1	...	...	...	...	1	...	...	...	1	...	1	...	...	...	...	3	...	36
4	3	4	7	8	4	5	11	8	9	3	1	8	8	4	1	20	3	37
...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	38
6	6	3	4	5	8	7	5	5	4	3	6	10	4	1	...	21	6	...

following occurred among cases brought to Boston for treatment: Scarlet fever 2.

VITAL STATISTICS.

April, 1913, Infant Mortality.

Detailed List Class Number.	CAUSES OF DEATH.	APRIL TOTALS, UNDER 1 YEAR.		Under 1 Day.	1 to 2 Days.	2 to 3 Days.	3 Days to 1 Week.	1 to 2 Weeks.	2 to 3 Weeks.	3 Weeks to 1 Month.	1 to 2 Months.	2 to 3 Months.	3 to 6 Months.	6 to 9 Months.	9 to 12 Months.	AGED 2 WEEKS AND OVER.		Nonresidents.
		1913.	1912.													Breast Fed.	Bottle Fed.	
	Total.....	169	159	23	11	1	15	9	9	9	12	7	30	19	24	35	75	21
	Male.....	97	88	11	7	1	7	5	4	5	7	6	15	13	16	25	41	11
	Female.....	72	71	12	4		8	4	5	4	5	1	15	6	8	10	34	10
	White.....	161	155	22	11	1	13	8	8	9	12	7	30	16	24	33	73	20
	Colored.....	8	4	1			2	1	1					3		2	2	1
1	Typhoid fever.....																	
5	Smallpox.....																	
6	Measles.....	2	5												2	1	1	
7	Scarlet fever.....	1												1			1	
8	Whooping cough.....	5	5										1	2	2	1	4	
9	Diphtheria and croup.....	2	1											1	1	1	1	
10	Influenza.....		1															
14	Dysentery.....																	
18	Erysipelas.....		2															
19	Other epidemic diseases.....		1															
20	Pus-infection and septicemia,	1							1							1		
24	Tetanus.....																	
28	Tuberculosis of the lungs....	3	1										1		2	1	2	2
29	Acute miliary tuberculosis....																	
30	Tuberculous meningitis.....	4	1										1	1	2	1	3	2
31 35	Other forms of tuberculosis..																	
36	Ricketts.....	1												1		1		
37	Syphilis.....		2															
38	Gonococcus infection.....																	
61	Simple meningitis.....	3	3								1		2				3	
61a	Cerebro-spinal fever.....		2															
63a	Acute poliomyelitis.....		1															
71	Convulsions.....	2	3						2								2	
76	Diseases of the ears.....		1															
79	Organic diseases of the heart,																	
89	Acute bronchitis.....	3	1							1			1		1		3	
91	Broncho-pneumonia.....	21	19					1		3	2		5	4	6	11	9	
92	Pneumonia.....	10	13						1			2	2	4	1	8	2	1
93	Pleurisy.....																	
103	Other diseases of stomach....		2															
104	Diarrhea and enteritis.....	25	21				1				3	3	10	5	3	5	19	5
108	Appendicitis and typhlitis...		1															

VITAL STATISTICS.

April, 1913, Infant Mortality.—*Concluded.*

Detailed List Class Number.	CAUSES OF DEATH.	APRIL TOTALS, UNDER 1 YEAR.		Under 1 Day.	1 to 2 Days.	2 to 3 Days.	3 Days to 1 Week.	1 to 2 Weeks.	2 to 3 Weeks.	3 Weeks to 1 Month.	1 to 2 Months.	2 to 3 Months.	3 to 6 Months.	6 to 9 Months.	9 to 12 Months.	AGED 2 WEEKS AND OVER.		Nonresidents.	
		1913.	1912.													Breast Fed.	Bottle Fed.		
109	Hernias,intestinal obstruction,	2	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	1	.....	.....	.....	.....	2	...
117	Simple peritonitis.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
119	Acute nephritis.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
143	Furuncle.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
144	Acute abscess.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	1	...
145	Other diseases of skin, etc.....	1	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	1	...
150a	Hydrocephalus.....	1	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	1	...
b	Congenital malformations of heart.	6	3	1	2	.....	.....	.....	1	.....	2	.....	.....	.....	.....	.....	1	2	1
c	Other malformations.....	4	4	1	.....	.....	1	.....	1	1	.....	.....	.....	.....	.....	.....	.....	2	...
151a	Premature birth.....	39	29	18	6	...	4	3	1	3	3	1	.....	.....	.....	.....	1	7	4
b	Congenital debility.....	11	11	.....	.....	.....	5	2	1	1	.....	.....	2	.....	.....	.....	.....	4	2
152a	Injuries at birth.....	7	5	3	2	1	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1
b	Other causes peculiar to early infancy.	5	4	...	1	...	3	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
167	Burns (conflagrations excepted).	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
168	Absorption of deleterious gases,	1	2	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	1	.....	.....
172	Traumatism by fall.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
182}	Homicide.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
184}	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
187}	Ill-defined diseases.....	1	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	1	...
189}	Other causes.....	7	6	.....	.....	.....	.....	2	.....	.....	.....	1	1	...	3	1	4	3	.....
	Breast fed *.....	35	34	.....	.....	.....	.....	.....	2	...	2	4	9	9	9	35	.....	1	.....
	Bottle fed *.....	75	78	.....	.....	.....	.....	.....	7	9	10	3	21	10	15	...	75	15	.....
	Nonresidents.....	21	10	...	1	1	1	2	2	...	2	1	6	1	4	1	15	21	.....

* Aged two weeks and over.

Additional Deaths for Other Months.

Jan., 1913.— 1 male; accidental drowning; white; aged 35 years; condition unknown; residence unknown; birthplace unknown; birthplace of mother unknown.

Feb., 1913.— 1 male; absorption of deleterious gases; white; aged 55 years; condition unknown; residence Ward 18; born in United States; birthplace of mother unknown.

March, 1913.— 1 male; alcoholism; white; aged 49 years; condition unknown; residence Ward 7; birthplace unknown; birthplace of mother unknown.

1 male; organic diseases of the heart; white; aged 40 years; married; residence Ward 9; born in England or Wales; mother born in England or Wales.

1 male; acute nephritis; white; aged 2 years; single; nonresident; born in United States; mother born in Germany.

1 male; suicide by hanging or strangulation; white; aged 34 years; condition unknown; residence unknown; birthplace unknown; birthplace of mother unknown.

1 female; alcoholism; white; aged 46 years; condition unknown; residence Ward 8; born in Canada; birthplace of mother unknown.

1 female; Bright's disease; white; aged 74 years; widow; residence Ward 22; born in United States; mother born in United States.

1 female; suicide by drowning; white; aged 37 years; married; residence Ward 22; born in Canada; mother born in Canada.

1 female; traumatism by fall; white; aged 61 years; widow; residence Ward 22; born in Scotland; mother born in Scotland.

Stillbirths, Jan. 3, Feb. 1, March 3.

DIVISION OF COMMUNICABLE DISEASES,
April, 1913.

Medical Inspectors.

New cases visited:

Diphtheria:	
<i>a.</i> Isolation	98
<i>b.</i> Diagnosis	23
Scarlet fever:	
<i>a.</i> Isolation	92
<i>b.</i> Diagnosis	28
<i>c.</i> Release	101
Measles:	
<i>a.</i> Isolation	7
<i>b.</i> Diagnosis	10
Varicella:	
<i>a.</i> Isolation	9
<i>b.</i> Diagnosis	0
Ophthalmia neonatorum	23
Tuberculosis	19
Typhoid fever	12
Deaths investigated	10
Vaccinations performed	7
Certificates of vaccination issued	9

Nurses.

New cases visited:

Diphtheria	165
Scarlet fever	149
Measles	828
Varicella	95
Typhoid fever	23
Whooping cough	144
Ophthalmia neonatorum	77
Released cultures taken for diphtheria	142

Old cases visited:

Diphtheria	219
Scarlet fever	594
Measles	387
Varicella	38

Typhoid fever	21
Whooping cough	42
Ophthalmia neonatorum	155

Disinfections.

Diphtheria	170
Scarlet fever	165
Tuberculosis	130

Forcible Removals.

Tuberculosis	1
Scarlet fever	3
Diphtheria	2

DIVISION OF

April, 1913. Cases Reported.

WARDS.	Anterior Polomyelitis.	Actinomycosis.	Asiatic Cholera.	Bubonic Plague.	Cerebro-spinal Meningitis.	Diphtheria.	Glanders.	Leprosy.	Malaria.	Malignant Pustule.	Measles.	Mumps.	Ophthalmia Neonatorum.
1.....						9					9	7	3
2.....	1					8					10	1	9
3.....						6					13	3	2
4.....						6					22	5	2
5.....						1					5	4	1
6.....						15					29	7	4
7.....						1					20	2	4
8.....						11					39	6	22
9.....					1	3			1		18		5
10.....						4					26	2	1
11.....						2					65	8	....
12.....						6					31	5	8
13.....						5					8	4	6
14.....						6					19	8	4
15.....						2					16	5	2
16.....						5					74	4	3
17.....					1	2					46	5	6
18.....						11					13	5	2
19.....						8					12	3	2
20.....						16					196	13	11
21.....					1	7					38	3	2
22.....						5			1		34	1	2
23.....						8					65	3	1
24.....						14					47	1	2
25.....						6					18	16	....
26.....						5					22	1	....
Total.....	1				3	172			2		895	122	104
Unknown.....													....
Nonresidents.....						2					2		....
Grand total.....	1				3	174			2		897	122	104
Corresponding month last year..		2			6	118			2		711	29	78

Included in the nonresidents were the following cases, brought to Boston

COMMUNICABLE DISEASES.

Cases Reported.

April, 1913.

Scarlet Fever.	Smallpox.	Tetanus.	Trachoma.	Trichinosis.	Tuberculosis (Pulmonary and Miliary).	Tuberculosis (Other Forms).	Typhoid Fever.	Typhus Fever.	Varicella.	Whooping Cough.	Yellow Fever.	WARDS.
12	10	...	...	...	2	7	...	1
9	8	...	1	...	1	3	...	2
4	2	...	...	...	6	2	...	3
4	6	...	1	...	6	5	...	4
3	8	1	...	...	6	1	...	5
5	25	1	1	...	1	9	...	6
2	20	2	1	...	2	3	...	7
7	26	1	2	...	11	4	...	8
2	...	1	...	...	19	1	...	...	6	11	...	9
3	1	...	17	...	1	...	2	3	...	10
5	3	...	...	...	5	2	...	11
5	1	...	14	...	1	...	4	2	...	12
2	10	3	...	...	2	13	...	13
9	7	2	1	...	5	6	...	14
4	10	...	...	...	7	4	...	15
4	8	1	3	...	4	9	...	16
9	11	1	...	...	...	14	...	17
2	11	2	...	...	3	8	...	18
9	11	1	...	...	3	1	...	19
8	12	1	1	...	11	11	...	20
5	5	1	2	...	1	8	...	21
6	15	2	2	...	4	7	...	22
5	5	...	...	...	3	3	...	23
20	15	1	...	...	5	9	...	24
7	8	...	...	...	12	9	...	25
4	3	...	2	...	...	1	...	26
135	...	1	2	...	289	21	19	...	112	155	...	Total
...	8	...	...	...	...	...	...	Unknown
7	7	...	20	5	1	...	...	...	...	Nonresidents
162	...	1	9	...	317	26	20	...	112	155	...	Grand total
109	2	...	391	30	19	...	262	83	...	Corresponding month last year.

for treatment: Measles, 2; scarlet fever, 7; diphtheria, 2; typhoid fever, 1.

DIVISION OF CHILD HYGIENE.—APRIL, 1913.

1. Medical Inspection of Schools.

Number inspections made	12,027
Number physical examinations made	7,287
Number visits made to homes	86

There were 979 pupils excluded from schools, ill with the following diseases:

Diphtheria	3	Pediculosis	515
Measles	5	Acute or purulent conjunctivitis	24
German measles	5	Ringworm	23
Chicken pox	16	Scabies	27
Whooping cough	8	Impetigo	40
Mumps	45	Favus	1
Pulmonary tuberculosis	5	Miscellaneous	181
Acute tonsilitis	80		
Influenza	1		

There were 9,675 cases of noncontagious disease found during the month, subdivided as follows:

Diseases of oral and respiratory tract	2,460
Diseases of ear	105
Diseases of eye	413
Diseases of skin	592
Dental caries	1,921
Miscellaneous	4,184

2. Physical Examination of Licensed Minors.

There were 121 girls and 198 boys between the ages of 14 and 16 years examined during the month. Seventy were found to be without defects and 249 with defects as follows:

Eyesight	44	Cardiac disease	4
Defective nasal breathing	5	Orthopedic defects	6
Hypertrophied tonsils	21	Skin	1
Defective teeth	211	Rickets	1
Cervical glands	1	Malnutrition	1
Pulmonary disease	3	Miscellaneous	31

Seven certificates were refused at this time.

3. Pre-Natal and Post-Natal Work.

Pre-Natal.

Number cases	27	Number babies born	8
Number visits	53		

Mothers attended as follows:

Family physician	4	Midwife	1
Hospital	3		

All of the above babies are breast-fed.

Post-Natal.

Number cases	1,485	Number visits	3,251
------------------------	-------	-------------------------	-------

Number babies not found on account of wrong address, removal, etc., 97.

Breast-fed	1,223	Breast and bottle fed	93
Bottle-fed	169		

Defective conditions noted as follows:

Improper feeding	24	Skin disease	1
Ophthalmia	17	Whooping cough	1
Umbilical hernia	2		

BACTERIOLOGICAL LABORATORY.

DIPHTHERIA:		GONORRHEA:	
Positive for diagnosis...	139	Positive.....	46
Positive for release.....	169	Negative.....	103
Negative for diagnosis....	1,209	Unsatisfactory.....	0— 149
Negative for release.....	424	GONORRHEAL OPHTHALMIA:	
"No growth" cultures..	22— 1,963	Positive.....	6
TUBERCULOSIS:		Negative.....	62
Positive.....	121	Unsatisfactory.....	0— 68
Negative.....	462	OTHER EXAMINATIONS:	
Unsatisfactory.....	0— 583	*Positive.....	7
TYPHOID:		Negative.....	27
Positive.....	16	Unsatisfactory.....	0— 34
Negative.....	108	BACTERIOLOGICAL MILK	
Atypical.....	6— 130	EXAMINATIONS.....	677
GLANDERS:	Straus.	Total.....	3,605
Positive.....	0		
Negative.....	1		
Unsatisfactory.....	0— 1		

* K-L Vir. T. B. pus, T.B. swab, organisms, malaria, G-U. T. B., paratyphoid.

INSPECTION OF MILK, VINEGAR, ETC.

Examination as to Statute Requirements.

Samples examined, milk from stores.....	619
" " milk from wagons.....	668
" " milk brought in by citizens.....	25
" " milk for bacteriological examination.....	677
" " vinegar.....	126
" " butter and cheese.....	66
" " meat.....	1
Total samples.....	2,182

INSPECTION OF DAIRIES.

Satisfactory * on first inspection.....	497
Satisfactory on later inspection.....	211
	708
Unsatisfactory on first inspection.....	329
Unsatisfactory on later inspection.....	41
	370

Total number of inspections.....	1,078
Dairies having milk rooms.....	432
Dairies without milk rooms.....	646
Number of cattle inspected.....	17,894
Number of dairies prohibited shipping milk to Boston, because of insanitary conditions of premises.....	38

* "Satisfactory" means having a score of at least 45 per cent by the government score card.

INSPECTED AT BRIGHTON ABATTOIR.

Cattle inspected.....	243	Cattle condemned (2 whole)...	635 lbs.
Calves inspected.....	1,557	Calves condemned (36 whole)...	1,518 lbs.
Sheep inspected.....	—	Sheep condemned.....	— lbs.
Swine inspected.....	5,183	Swine condemned (7 whole)...	953 lbs.
Cattle condemned (parts of 30), 1,295 lbs.		Swine condemned (parts of 415),	2,732 bs.

INSPECTION OF PROVISIONS.—ARTICLES CONDEMNED.

Meats.		Miscellaneous.	
Veal (immature).....	99 lbs.	Eggs.....	6 doz.
Mutton (tainted).....	12 lbs.	Canned goods.....	34 cans.
Beef (tainted).....	754 lbs.	Vegetables.....	11 bush.
Pork (tainted).....	194 lbs.		
Poultry (tainted).....	141 lbs.		

SANITARY INSPECTION DIVISION.

New reports.....	3,990
Reinspections.....	10,915
New tenement house reports.....	496
Nuisances reported.....	6,497
Legal notices.....	514
Court cases.....	19
Fines.....	\$265
Tenements vacated.....	6
Houses demolished.....	2
Milk applications approved.....	105
Stable hearings.....	1
Dump permits.....	5

QUARANTINE.

Vessels inspected at quarantine.....	75
Total immigrants arriving in Boston.....	4,501

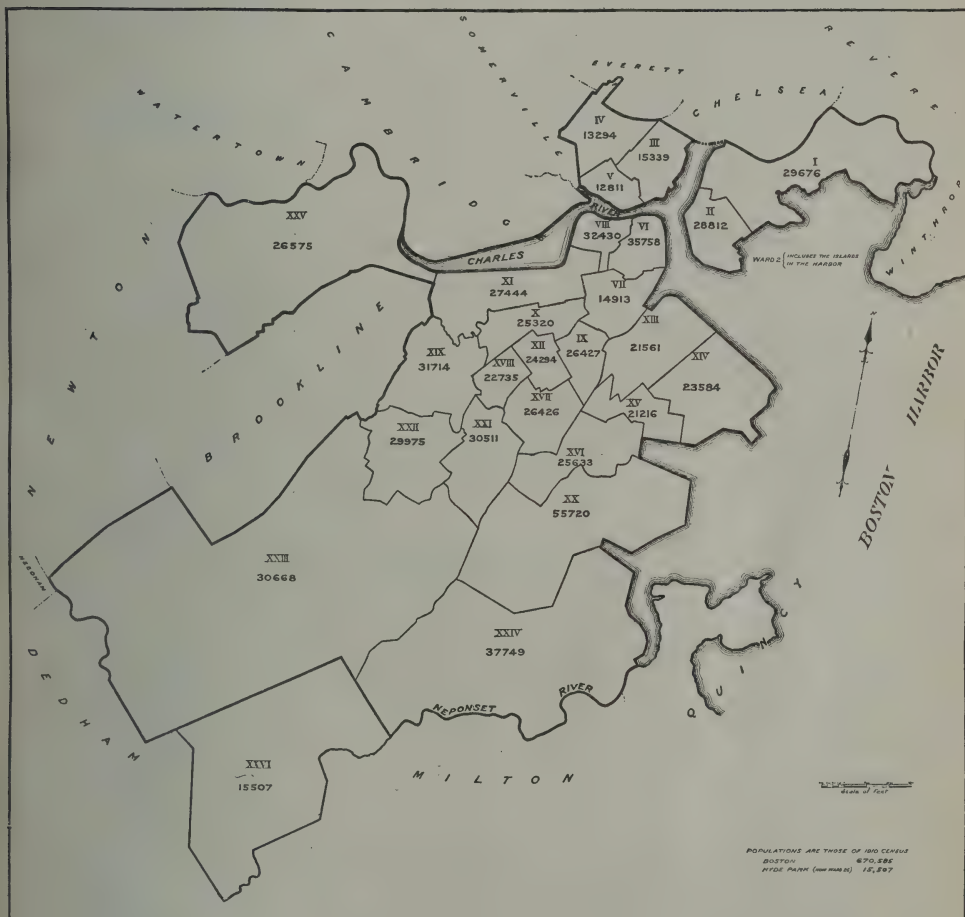
MONTHLY METEOROLOGICAL SUMMARY.
Taken at Weather Bureau, Boston, April, 1913.

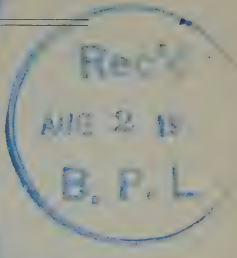
DAY.	TEMPERATURE, DEGREES FAHRENHEIT.			Relative Humidity.	Daily Precipitation.	Actual Hours Sun- shine.	WIND.		
	Maximum.	Minimum.	Mean.				Average Hourly Velocity. (Miles.)	Maximum Velocity. (Miles.)	Prevailing Direction.
1.....	47	38	42	54	0	7.6	20.3	33	W.
2.....	55	38	46	40	0	12.8	20.2	34	W.
3.....	46	41	44	60	.01	2.5	8.7	14	E.
4.....	43	39	41	90	.02	2.7	12.5	20	N. E.
5.....	53	39	46	89	.41	4.9	8.0	16	N. W.
6.....	48	34	41	92	.08	7.3	6.4	14	W.
7.....	40	34	37	90	.09	2.1	9.0	20	N. W.
8.....	48	30	39	62	0	13.0	11.1	28	N. W.
9.....	41	29	35	60	0	13.1	13.0	25	E., N. W.
10.....	49	31	40	52	0	13.1	8.1	21	N. W.
11.....	52	38	45	86	.75	0	9.6	18	S.
12.....	60	52	56	97	.44	0	8.4	21	S. W.
13.....	52	44	48	100	1.42	0	7.2	13	N.
14.....	55	46	50	87	.02	6.9	7.8	15	E.
15.....	48	41	44	96	T	4.1	13.0	22	N. E.
16.....	48	40	44	97	.86	0	8.2	20	N.
17.....	50	41	46	88	0	13.4	10.8	22	S. E.
18.....	62	40	51	86	T	13.5	14.7	28	S. W.
19.....	68	39	54	88	.04	7.8	19.2	36	S. W., W.
20.....	40	34	37	64	0	12.3	17.2	28	N. W.
21.....	55	35	45	35	0	13.5	10.3	18	N. W.
22.....	70	45	58	38	0	12.4	10.6	20	W.
23.....	70	52	61	81	.11	10.3	6.3	14	S. W.
24.....	67	48	58	80	0	12.4	5.2	12	E.
25.....	76	58	67	64	0	12.1	8.5	19	S. W.
26.....	74	54	64	66	0	13.8	8.0	19	S. W.
27.....	57	45	51	100	T	6.5	8.9	16	E.
28.....	52	47	50	100	.42	0	10.0	19	N. E.
29.....	54	46	50	91	.10	4.0	7.6	21	N. E.
30.....	59	40	50	39	0	14.0	14.0	25	N.
31.....									
Totals.....	—	—	—	—	4.77	236.1	—	—	—
Means.....	54.6	41.3	48.0	75.7	0.16	59%	10.8	19th	W.

Latitude 42 degrees 21 minutes.

Longitude 71 degrees 4 minutes.

BOSTON WARD MAP.





MONTHLY BULLETIN

OF THE

HEALTH DEPARTMENT

OF THE

CITY OF BOSTON



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ORGANIZATION OF THE HEALTH DEPARTMENT

FRANCIS X. MAHONEY, M. D., *Chairman.*

P. H. MULLOWNEY, M. D. V.

F. H. SLACK, M. D., *Secretary.*

MONTHLY BULLETIN

OF THE

HEALTH DEPARTMENT OF THE CITY OF BOSTON.

All communications relating to this publication should be addressed to
BULLETIN OF THE HEALTH DEPARTMENT, 100 Summer St., Boston.

VOL. 2.

BOSTON, MAY, 1913.

No. 5.

ANTI-TYPHOID INOCULATION.

Anti-typhoid inoculation has proven to be a valuable aid in preventive health work. Its value has been proven by thousands of inoculations of soldiers in the English, German and American armies. These experiments have been carried on since 1897 to the present time, and have proven exceedingly successful. The inoculation of nurses and attendants in the various hospitals has almost stamped out typhoid amongst this class of greatly exposed persons. Typhoid inoculation is recommended by the highest medical authorities in this country and abroad. The various medical commissions who have investigated the subject report most favorably on anti-typhoid inoculation.

The anti-typhoid treatment consists of three injections of a definite number of killed typhoid organisms. The injections are given subcutaneously, preferably in the arm at the insertion of the Deltoid muscle. Each injection is given at an interval of ten days. There are never any serious results. Generally there is only a slight local reaction, some redness, swelling and pain, which rapidly passes away. It is only occasionally that a more severe local reaction occurs with some constitutional disturbance. In healthy persons typhoid inoculation is an entirely harmless proceeding.

The typhoid prophylactic used in Boston is prepared and furnished by the State Board of Health.

Treatment can be taken by both adults and children.

Successfully inoculated persons are perfectly protected against typhoid infection. The period of protection lasts from two to three years or more.

The treatment is especially recommended for those who are brought in contact with the sick from occupation or necessity, and to vacationists and travelers who leave the city. Much of the fall typhoid is brought into the city by those who have been in some infected locality during the summer.

SUMMARY OF VITAL STATISTICS FOR THE MONTH OF MAY, 1913.

Boston had 1,056 deaths in May, 1913, compared with 914 for May of last year; and a death rate of 16.91 against 14.95 for May, 1912. Deaths of nonresidents numbered 130 against 100 a year ago. Deducting deaths of nonresidents the corrected death rate for May, 1913, was 14.83 against 13.31 for May, 1912.

Of deaths from reportable diseases the principal increases were tuberculosis (all forms) 30; diphtheria, 9; scarlet fever, 6; measles, 4, and whooping cough, 4.

Other important increases were as follows:

Organic heart disease and nephritis	27
Pneumonia	17
Cancer	12
Congenital debility and malformations	10
Violent deaths	10
Broncho-pneumonia	8
Hernia, intestinal obstruction	8

Ward 26 had the lowest rate, 7.29, and Ward 18 the highest, 19.85.

There were 8 more deaths under one year than in May, 1912, 11 more under 5 years, and 28 more over 60 years.

The total deaths under one year numbered 187, which is 21 more than the average number for May for the preceding 5 years. Ninety-two of these deaths were due to premature birth, congenital debility, malformations and other diseases peculiar to early infancy; 27 to pneumonia and broncho-pneumonia; 23 to diarrhea and enteritis; 13 to reportable diseases, and 32 to "other causes."

Of these deaths under one year, Ward 20 had the largest number, 19, and Ward 6 came next with 16.

One hundred and seventeen were over two weeks old and 82 of these were bottle fed.

VITAL STATISTICS.

GENERAL STATISTICS.

Population, Ward Area, Persons to Acre, and Rates.

	Land Area in Acres.	Population, 1910 Census.	Persons to Acre of Land. (Using Census Population.)	Population, Estimated, July 1, 1913.†	STILLBIRTHS EXCLUDED.		
					Death Rates, 1912. (Population, Estimated.)†	Birth Rates, 1911. (Population, Estimated.)†	Death Rates, 1912. of Children Under One Year, Per 1,000 Births, 1911.
* Boston.....	27,674	686,092	24.8	735,399	16.17	25.99	119.35
Wards 1.....	1,188	29,676	24.9	32,439	13.05	24.90	104.58
2.....	357	28,812	80.7	30,676	17.11	33.37	120.81
3.....	332	15,339	46.2	15,667	15.29	26.84	106.02
4.....	301	13,294	44.1	13,808	18.02	25.50	148.26
5.....	207	12,811	61.9	12,914	16.69	24.28	118.59
6.....	293	35,758	122.0	39,492	16.18	48.81	100.33
7.....	394	14,913	37.9	14,483	20.05	23.57	94.39
8.....	171	32,430	189.6	33,479	12.07	33.21	70.64
9.....	186	26,427	141.5	29,214	15.13	27.40	106.24
10.....	394	25,320	64.3	26,277	11.86	10.51	114.81
11.....	663	27,444	41.4	30,738	9.69	14.22	63.73
12.....	235	24,294	103.4	25,948	14.98	14.57	181.82
13.....	611	21,561	35.3	21,501	17.24	31.11	117.91
14.....	405	23,584	58.2	24,527	14.44	24.14	115.92
15.....	277	21,216	76.6	21,803	14.80	20.25	119.82
16.....	564	25,633	45.6	28,033	12.75	24.23	110.42
17.....	460	26,426	57.4	27,793	15.49	25.65	117.22
18.....	220	22,735	103.3	23,133	17.08	25.08	99.30
19.....	760	31,714	41.7	33,332	13.77	22.77	111.41
20.....	1,716	55,720	32.5	64,723	12.97	20.33	158.90
21.....	640	30,511	20.5	33,085	13.54	17.53	85.14
22.....	760	29,975	38.1	31,403	12.50	20.55	100.48
23.....	7,617	30,668	4.0	33,423	12.13	19.93	94.94
24.....	3,252	37,749	11.6	41,695	12.63	23.73	103.11
25.....	2,740	26,575	9.7	29,661	11.95	24.73	96.21
26.....	2,869	15,507	5.4	16,152	12.29	29.59	107.30

* Hyde Park was annexed to Boston January 1, 1912, and became Ward 26. Under "Boston" in the above table, Hyde Park statistics are included.

† Population estimated by arithmetical method, using the censuses of 1905 and 1910.

‡ An infant asylum is located in this ward.

VITAL STATISTICS.

May. General Summary.

	1913.	1912.
Total deaths	1,056	914
Population, estimated*	735,399	720,031
Death rate per 1,000	16.91	14.95
Deaths of nonresidents	130	100
Corrected death rate†	14.83	13.31

* Population estimated by arithmetical method, using the censuses of 1905 and 1910.

† Nonresidents not included.

May, 1913. Statement of Deaths.

Total number (stillbirths ex- cluded)		NATIVITY.	
	1,056	United States	663
		Ireland	158
		England and Wales	23
		Scotland	12
		Germany	21
		Canada	70
		Italy	36
		Russia and Poland	33
		Sweden and Norway	7
		France	4
		Other countries	20
		Unknown	9
SEX.		NATIVITY OF MOTHERS.	
Males	564	United States	297
Females	492	Ireland	321
		England and Wales	39
		Scotland	18
		Germany	30
		Canada	98
		Italy	84
		Russia and Poland	59
		Sweden and Norway	14
		France	4
		Other countries	34
		Unknown	58
CONDITION.			
Single	508		
Married	340		
Widowed	198		
Divorced	3		
Unknown	7		
COLOR.			
White	1,026		
Black (negro or mixed)	29		
Chinese	1		
Deaths of children:			
Under one year	187		
Under two years	228		
Under five years	261		
Stillbirths during the month,	49		

VITAL STATISTICS.

May, 1913.

Mortality by

Abridged List Class Number.	CAUSES OF DEATH.	TOTALS.		Under 1 Year.	1 Year.	2 Years.	3 Years.	4 Years.	Under 5 Years.	5 to 9 Years.	10 to 14 Years.	15 to 19 Years.
		1913.	1912.									
	Total, all causes.....	1,056	914	187	41	14	11	8	261	24	19	20
		1913	1912									
1	Typhoid fever.....	1	1									
3	Malarial fever.....											
4	Smallpox.....											
5	Measles.....	12	8	5	3	3		1	12			
6	Scarlet fever.....	9	3		1	1			2	5	1	
7	Whooping cough.....	9	5	4	2		2	1	9			
8	Diphtheria and croup.....	15	6	1	3	1	1		6	4	3	
9	Influenza.....	1										
12	Other epidemic diseases.....	6	8	1	1				2			
13	Tuberculosis of the lungs.....	111	79	1	3		1		5		2	3
14	Tuberculous meningitis.....	10	10	2	2	2			6	1	1	
15	Other forms of tuberculosis.....	5	7		2				2		1	
16	Cancer, malignant tumor.....	74	62									
17	Simple meningitis (except cerebro-	5	5	3	1	1			5			
17a	spinal meningitis).....	2	2		2				2			
18	Cerebro-spinal meningitis.....	2	2		2				2			
18	Apoplexy and softening of the brain,	43	46									1
19	Organic heart diseases.....	145	121							2	2	5
20	Acute bronchitis.....	10	5	4	1	1			6			
21	Chronic bronchitis.....	3	4									
22	Pneumonia (except broncho-pneumonia).	92	75	10	7		2	1	20	1	2	
22a	Broncho-pneumonia.....	51	43	17	7	3	2	1	30	2		
23	Other respiratory diseases.....	10	7		2				2			
24	Diseases of the stomach (cancer ex-	5	6							1		
25	cepted).....											
25	Diarrhea and enteritis (under two	24	24	23	1				24			
26	years).....											
26	Appendicitis and typhlitis.....	7	12								1	2
27	Hernia, intestinal obstruction.....	15	7	5					5			
28	Cirrhosis of liver.....	7	7		1				1			
29	Bright's disease and nephritis.....	66	63	1					1			1
30	Diseases of women (not cancer)...	4	8									
31	Puerperal septicemia.....	7	4									
32	Other puerperal diseases.....	7	6									1
33	Congenital debility and malforma-	76	66	75	1				76			
34	tions.....											
34	Old age.....	3	2									
35	Violent deaths.....	60	50	2	1	2	2	2	9	5	4	5
36	Suicide.....	9	12									
37	Other diseases.....	150	148	32			1	2	35	3	2	2
38	Ill-defined causes.....	2	2	1					1			

20 to 24 Years.	25 to 29 Years.	30 to 34 Years.	35 to 39 Years.	40 to 44 Years.	45 to 49 Years.	50 to 54 Years.	55 to 59 Years.	60 to 64 Years.	65 to 69 Years.	70 to 74 Years.	75 to 79 Years.	80 to 84 Years.	85 to 89 Years.	90 Years and over.	SEX.		Abridged List Class Number.
															Males.	Females.	
37 24	44 32	41 30	61 56	59 41	73 50	65 60	67 64	79 65	58 57	51 48	42 43	29 27	13 9	13 8	564 466	492 448	
.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	1
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	3
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	4
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	4	8	5
1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2	7	6
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2	7	7
.....	1	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	10	5	8
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	1	.....	9
.....	.....	.....	.....	2	1	.....	.....	1	.....	.....	.....	.....	.....	.....	4	2	12
9	15	13	20	11	16	6	3	7	.....	1	.....	.....	.....	.....	77	34	13
1	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	4	6	14
.....	.....	1	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	4	15
.....	1	2	5	9	7	12	6	16	9	5	2	.....	.....	.....	35	39	16
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	4	1	17
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2	17a
.....	.....	1	.....	1	2	2	6	8	5	2	7	4	4	.....	25	18	18
3	1	5	4	12	6	11	10	16	15	18	19	14	.....	2	71	74	19
1	.....	.....	.....	.....	1	.....	.....	.....	.....	2	.....	.....	.....	.....	4	6	20
.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	1	1	.....	.....	2	1	21
3	2	4	7	4	12	6	9	7	6	6	1	.....	2	.....	52	40	22
1	2	2	.....	.....	1	1	.....	1	3	1	2	3	.....	2	24	27	22a
.....	.....	.....	1	3	.....	.....	.....	.....	1	.....	.....	.....	2	1	6	4	23
.....	.....	.....	.....	.....	1	1	1	1	.....	.....	.....	.....	.....	.....	4	1	24
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	15	9	25
2	.....	.....	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	5	2	26
.....	1	.....	.....	1	.....	.....	2	2	2	.....	.....	1	.....	1	7	8	27
.....	.....	.....	.....	.....	2	.....	2	.....	.....	1	.....	.....	.....	1	4	3	28
3	2	1	3	1	5	9	13	7	7	7	3	3	.....	.....	32	34	29
.....	.....	.....	1	1	1	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	4	30
2	2	2	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	7	31
1	2	1	1	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	7	32
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	41	35	33
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2	1	.....	3	34
4	5	5	4	3	4	4	3	3	.....	1	.....	.....	.....	1	39	21	35
2	2	.....	1	.....	1	2	.....	.....	1	.....	.....	.....	.....	.....	9	.....	36
4	8	3	9	8	13	10	12	10	8	7	6	3	3	4	78	72	37
.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2	.....	38

VITAL STATISTICS.

May, 1913.

Mortality by

Abridged List Class Number.	CAUSES OF DEATH.	Boston.	WARD RESIDENCE.										
			1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
	All causes.....	1,056	39	41	16	22	17	47	16	37	39	28	27
	Rates per 1,000 popula- (1913) 16.91 14.16 15.74 12.02 18.76 15.50 14.01 13.01 15.72 12.55 10.34	14.95	10.07	14.87	18.15	17.25	13.71	15.97	20.94	13.14	12.05	12.24	6.74
1	Typhoid fever.....	1											
3	Malarial fever.....												
4	Smallpox.....												
5	Measles.....	12		1	1	1	1	4					
6	Scarlet fever.....	9		1					1	2			
7	Whooping cough.....	9	1			1					1		
8	Diphtheria and croup.....	15		3	1			1					
9	Influenza.....	1											
12	Other epidemic diseases.....	6											
13	Tuberculosis of the lungs.....	111	5	10	1	1	2	5	3	3	7	2	3
14	Tuberculous meningitis.....	10	1				1					2	
15	Other forms of tuberculosis...	5											
16	Cancer, malignant tumor....	74	4			1		2		1	4	3	1
17	Simple meningitis (except cerebro-spinal meningitis).	5		1		1				1			
17a	Cerebro-spinal meningitis.....	2		1									
18	Apoplexy and softening of the brain.	43	1	1				1		1		3	1
19	Organic heart diseases.....	145	1	5	1	3	1	2	1	3	2	7	3
20	Acute bronchitis.....	10		1	1	1	1	1					
21	Chronic bronchitis.....	3	1									1	1
22	Pneumonia (except broncho-pneumonia).	92	2	2	2	4	4	4	1	5	4		4
22a	Broncho-pneumonia.....	51	2	4		1	2	9	1	2	1		
23	Other respiratory diseases.....	10	2			1				1			2
24	Diseases of the stomach (cancer excepted).	5	1		1					1			
25	Diarrhea and enteritis (under two years).	24	1	1						1	3		
26	Appendicitis and typhlitis.....	7	1					1	1			1	
27	Hernia, intestinal obstruction,	15						2				1	
28	Cirrhosis of liver.....	7	1		2						1		
29	Bright's disease and nephritis..	66	3	1	1	1		2	1	1	1		2
30	Diseases of women (not cancer),	4											
31	Puerperal septicemia.....	7		1					1		1		1
32	Other puerperal diseases.....	7											
33	Congenital debility and malformations.	76	4	5	1	2	1	4	3	4	5	3	1
34	Old age.....	3											1
35	Violent deaths.....	60	2	1		2	1	4	1	4		2	
36	Suicide.....	9	1	1						1			1
37	Other diseases.....	150	5	1	4	2	3	5	2	5	9	3	6
38	Ill defined causes.....	2								1			
	Total deaths under one year..	187	6	12	3	6	3	16	3	7	10	3	1

Of deaths of nonresidents from typhoid fever, measles, scarlet fever and diphtheria

VITAL STATISTICS.

Cause and Residence.

May, 1913.

WARD RESIDENCE.																Boston, Ward Unknown.	Nonresidents.	Unknown.	Abridged List Class Number.
12.	13.	14.	15.	16.	17.	18.	19.	20.	21.	22.	23.	24.	25.	26.					
43	36	32	32	30	41	39	43	91	31	41	35	48	34	10	1	130	10	....
19.51	19.71	15.33	17.28	12.60	17.37	19.85	15.19	16.55	11.03	15.37	12.33	13.55	13.50	7.29	....	....	....	....
21.30	14.77	12.15	11.44	12.08	14.20	20.98	13.27	11.79	12.77	12.55	13.74	9.89	7.80	9.60	....	....	....	....
....	....	....	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	1
....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	3
....	....	....	....	....	1	....	....	2	....	....	1	....	....	....	....	....	....	4
....	1	1	1	....	....	1	....	....	....	....	....	....	1	....	....	....	....	5
....	1	2	....	....	1	....	....	....	....	....	....	1	....	....	....	....	1	6
....	1	....	1	....	....	1	1	....	4	....	....	1	....	1	....	....	....	7
....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	8
....	....	....	....	....	....	....	....	....	1	....	....	....	....	....	....	....	....	9
....	1	....	2	....	....	....	....	....	1	....	....	....	1	1	....	....	....	12
....	3	5	2	5	3	6	3	4	8	2	5	5	4	1	....	....	11	2
....	....	....	1	....	....	....	....	....	1	....	....	....	1	2	....	....	1	14
....	....	....	1	....	....	....	....	....	....	1	....	....	....	1	....	....	2	15
....	5	3	3	4	4	1	1	3	7	4	2	4	4	2	....	....	11	16
....	....	1	....	....	....	....	....	....	....	....	....	....	1	....	....	....	....	17
....	....	....	....	....	....	....	....	1	....	....	....	....	....	....	....	....	....	17a
....	1	2	1	1	4	1	....	2	6	2	3	4	6	....	....	....	2	18
....	9	4	4	6	8	9	7	10	16	4	3	6	6	5	2	....	17	19
....	1	1	....	1	....	....	....	1	1	....	....	....	....	....	....	....	....	20
....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	21
....	6	1	2	4	3	3	2	4	11	3	2	3	2	6	1	....	7	22
....	....	3	....	....	....	3	2	....	4	4	5	3	....	2	1	....	1	22a
....	....	1	1	....	....	....	....	....	....	1	....	....	....	....	....	....	1	23
....	....	1	....	....	....	....	....	....	....	....	1	....	....	....	....	....	....	24
....	....	....	....	....	....	2	....	5	....	....	2	....	....	1	....	....	2	25
....	....	....	....	1	....	....	....	....	....	....	....	....	....	1	....	....	....	26
....	1	....	....	1	....	2	1	1	....	1	....	....	3	....	....	....	2	27
....	....	....	....	....	....	....	1	....	....	1	....	1	....	....	....	....	....	28
....	5	5	3	2	1	3	7	7	5	2	4	....	3	1	2	....	3	29
....	....	....	....	1	....	....	....	....	....	....	1	....	....	....	....	....	2	30
....	....	....	....	....	....	1	1	....	....	....	....	....	....	....	....	....	1	31
....	....	....	....	....	....	....	....	1	1	....	....	....	....	....	....	....	5	32
....	4	....	1	....	2	1	2	3	3	....	1	1	7	3	1	....	14	33
....	....	....	....	....	....	....	....	....	....	....	1	....	....	1	....	....	....	34
....	2	2	4	2	....	....	2	....	2	....	2	2	1	1	1	....	22	35
....	....	....	....	....	....	....	....	1	....	....	1	....	1	....	....	....	2	36
....	3	3	5	4	4	8	5	5	15	4	8	4	5	6	1	1	23	1	37
....	1	38
....	6	6	5	2	2	5	6	5	19	1	6	3	14	5	1	....	25	6

there were none among cases brought to Boston for treatment.

VITAL STATISTICS.
May, 1913, Infant Mortality.

Detailed List Class Number.	CAUSES OF DEATH.	MAY TOTALS, UNDER 1 YEAR.		Under 1 Day.	1 to 2 Days.	2 to 3 Days.	3 Days to 1 Week.	1 to 2 Weeks.	2 to 3 Weeks.	3 Weeks to 1 Month.	1 to 2 Months.	2 to 3 Months.	3 to 6 Months.	6 to 9 Months.	9 to 12 Months.	AGED 2 WEEKS AND OVER.		Nonresidents.
		1913.	1912.													Breast Fed.	Bottle Fed.	
	Total.....	187	179	32	9	5	19	5	9	9	14	13	23	23	26	35	82	25
	Male.....	109	101	21	5	2	12	4	6	5	7	9	15	13	10	20	45	15
	Female.....	78	78	11	4	3	7	1	3	4	7	4	8	10	16	15	37	10
	White.....	181	174	32	9	4	19	5	8	8	12	13	23	22	26	34	78	24
	Colored.....	6	5			1			1	1	2			1		1	4	1
1	Typhoid fever.....																	
5	Smallpox.....																	
6	Measles.....	5	3											2	3	3	2	
7	Scarlet fever.....																	
8	Whooping cough.....	4	3											1	3	1	3	
9	Diphtheria and croup.....	1	1												1		1	
10	Influenza.....																	
14	Dysentery.....																	
18	Erysipelas.....	1	4										1				1	
19	Other epidemic diseases.....																	
20	Pus-infection and septicemia,	1	1							1							1	
24	Tetanus.....																	
28	Tuberculosis of the lungs.....		3															
29	Acute miliary tuberculosis...	1											1				1	1
30	Tuberculous meningitis.....	2	3											1	1	1	1	1
31) 35)	Other forms of tuberculosis..		2															
36	Rickets.....																	
37	Syphilis.....	4	4						1	1			2			1	3	1
38	Gonococcus infection.....																	
61	Simple meningitis.....	3	1								1			2		2	1	
61a	Cerebro-spinal fever.....		1															
63a	Acute poliomyelitis.....																	
71	Convulsions.....	3					2			1						1		
76	Diseases of the ears.....	2							1					1			2	
79	Organic diseases of the heart,																	
89	Acute bronchitis.....	4	4						2				1	1		2	2	
91	Broncho-pneumonia.....	17	20						1	1	3	1	2	2	7	6	11	1
92	Pneumonia.....	10	13						1		1		2	3	3	4	6	1
93	Pleurisy.....																	
103	Other diseases of stomach.....		3															
104	Diarrhea and enteritis.....	23	21								3	7	6	6	1	3	20	2
108	Appendicitis and typhlitis ..																	

VITAL STATISTICS.

May, 1913, Infant Mortality.—*Concluded.*

Detailed List Class Number.	CAUSES OF DEATH.	MAY TOTALS, UNDER 1 YEAR.		Under 1 Day.	1 to 2 Days.	2 to 3 Days.	3 Days to 1 Week.	1 to 2 Weeks.	2 to 3 Weeks.	3 Weeks to 1 Month.	1 to 2 Months.	2 to 3 Months.	3 to 6 Months.	6 to 9 Months.	9 to 12 Months.	AGED 2 WEEKS AND OVER.		Nonresidents.
		1913.	1912.													Breast Fed.	Bottle Fed.	
109	Hernias,intestinal obstruction,	5	1	...	...	...	...	...	...	...	...	1	1	1	2	2	3	1
117	Simple peritonitis.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
119	Acute nephritis.....	1	...	...	...	...	...	...	...	...	...	...	1	...	...	1	...	...
143	Furuncle.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
144	Acute abscess.....	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
145	Other diseases of skin, etc.....	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
150a	Hydrocephalus.....	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
b	Congenital malformations of heart.	7	4	2	...	...	1	...	1	...	2	...	...	...	1	...	4	2
c	Other malformations.....	4	4	...	...	...	...	...	...	...	3	1	...	...	...	1	3	2
151a	Premature birth.....	48	42	23	7	3	8	2	...	4	...	...	1	...	...	2	3	6
b	Congenital debility.....	16	15	1	...	1	2	1	2	1	1	3	2	1	1	3	8	3
152a	Injuries at birth.....	10	6	4	1	...	5	...	...	...	...	...	...	...	...	...	...	2
b	Other causes peculiar to early infancy.	7	12	2	1	1	...	2	...	...	...	...	...	1	...	...	1	1
167	Burns (conflagrations excepted).	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
168	Absorption of deleterious gases,	2	1	...	...	...	...	...	...	...	...	...	...	1	1	1	1	...
172	Traumatism by fall.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
182	Homicide.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
184	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
187	Ill-defined diseases.....	1	1	...	...	...	...	...	...	...	...	...	...	...	1	...	1	...
189	Other causes.....	5	3	...	...	...	1	...	...	...	...	...	3	...	1	1	3	1
	Breast fed *.....	35	41	...	...	...	...	...	2	3	3	2	7	8	10	35	...	2
	Bottle fed *.....	82	73	...	...	...	...	...	7	6	11	11	16	15	16	...	82	13
	Nonresidents.....	25	14	6	1	...	2	1	3	2	2	1	2	4	1	2	13	25

* Aged two weeks and over.

Additional Deaths for Other Months.

Jan., 1913.—1 male; accidental drowning; white; aged 40 years; condition unknown; residence unknown; birthplace unknown; birthplace of mother unknown.

1 male; accidental drowning; white; aged 55 years; condition unknown; residence unknown; birthplace unknown; birthplace of mother unknown.

1 male; accidental drowning; white; aged 17 years; single; residence Ward 9; born in United States; mother born in Canada.

Feb., 1913.—1 male; accidental drowning; white; aged 25 years; condition unknown; residence unknown; birthplace unknown; birthplace of mother unknown.

1 male; accidental drowning; white; aged 50 years; condition unknown; residence unknown; birthplace unknown; birthplace of mother unknown.

March, 1913.—1 male; alcoholism; white; aged 39 years; single; residence Ward 10; born in England or Wales; mother born in England or Wales.

April, 1913.—1 male; appendicitis and typhilitis; white; aged 48 years; married; residence Ward 7; born in Ireland; mother born in Ireland.

1 male; cancer and other malignant tumors of bucal cavity; white; aged 47 years; married; residence Ward 11; born in United States; mother born in Italy.

1 male; traumatism by fall; black; aged 53 years; single; residence Ward 18; born in United States; birthplace of mother unknown.

1 male; traumatism by other crushing; white; aged 25 years; condition unknown; residence unknown; birthplace unknown; birthplace of mother unknown.

1 male; traumatism by other crushing; white; aged 30 years; condition unknown; residence unknown; birthplace unknown; birthplace of mother unknown.

1 male; other external violence; white; aged 7 years; single; nonresident; born in United States; mother born in Italy.

DIVISION OF COMMUNICABLE DISEASES,
May, 1913.

Medical Inspectors.

New cases visited:

Diphtheria:		
a. Isolation		97
b. Diagnosis		4
Scarlet fever:		
a. Isolation		79
b. Diagnosis		12
c. Release		67
Typhoid fever		7
Measles:		
a. Isolation		5
b. Diagnosis		10
Varicella:		
a. Isolation		0
b. Diagnosis		4
Ophthalmia neonatorum		10
Tuberculosis		32
Deaths investigated		17

Nurses.

New cases visited:

Diphtheria	176
Scarlet fever	136
Typhoid fever	9
Whooping cough	119
Ophthalmia neonatorum	107
Mumps	1
Measles	733
Varicella	73
Malaria	1
Cerebro-spinal meningitis	1
Trachoma	2

Old cases visited:

Diphtheria	187
Scarlet fever	313
Typhoid fever	25

Whooping cough	54
Ophthalmia neonatorum	203
Measles	576
Varicella	43
Release cultures taken for diphtheria	182
Vaccinations performed	1381
Certificates granted	12

Forcible Removals.

Tuberculosis	1
Diphtheria	1
Scarlet fever	3

Disinfections.

Diphtheria	143
Scarlet fever	128
Phthisis	221

DIVISION OF

May, 1913. Cases Reported.

WARDS.	Anterior Poliomyelitis.	Actinomycosis.	Asiatic Cholera.	Bubonic Plague.	Cerebro-spinal Meningitis.	Diphtheria.	Glanders.	Leprosy.	Malaria.	Malignant Pustule.	Measles.	Mumps.	Ophthalmia Neonatorum.
1.....						8					16	6	3
2.....					1	15					11	....	9
3.....						6					16	4	2
4.....						3					28	6	2
5.....						4					13	3	4
6.....						19					22	22	10
7.....						2					6	1	7
8.....						9			1		28	6	16
9.....						6			1		7	1	11
10.....						2					8	1	....
11.....						6					13	19	3
12.....						19					41	5	7
13.....						5					3	3	6
14.....						9					19	4	3
15.....						4					10	5	....
16.....						6			1		41	4	1
17.....	1					10					16	8	6
18.....						7			1		7	7	3
19.....						17					25	....	4
20.....						22			1		103	8	14
21.....					1	6					29	6	6
22.....						2					18	2	2
23.....						2					118	2	1
24.....						7					101	9	3
25.....	1				1	5			1		5	29	1
26.....											74	1	2
Total.....	2				3	201			6		778	162	126
Unknown.....													
Nonresidents.....						4					5	....	5
Grand total.....	2				3	205			6		783	162	131
Corresponding month last year..	3				5	133		1	3		721	29	111

Included in the nonresidents were the following cases brought to Boston

COMMUNICABLE DISEASES.

Cases Reported.

May, 1913.

Scarlet Fever.	Smallpox.	Tetanus.	Trachoma.	Trichinosis.	Tuberculosis (Pulmonary and Miliary).	Tuberculosis (Other Forms).	Typhoid Fever.	Typhus Fever.	Varicella.	Whooping Cough.	Yellow Fever.	WARDS.
1	11	1	.....	.....	3	7	.....	1
6	1	.....	12	2	1	.....	3	7	.....	2
7	3	.....	.....	.....	2	.....	.....	3
2	5	.....	.....	.....	3	4	.....	4
.....	9	1	.....	.....	.....	2	.....	5
5	1	.....	17	1	1	.....	4	5	.....	6
6	1	.....	14	1	.....	.....	4	7	.....	7
5	21	2	.....	.....	13	8	.....	8
2	24	1	.....	.....	2	7	.....	9
1	15	2	.....	.....	.....	3	.....	10
5	8	1	.....	.....	4	1	.....	11
5	11	.....	.....	.....	.....	.....	.....	12
2	15	.....	.....	.....	.....	13	.....	13
10	7	1	1	.....	1	3	.....	14
10	7	.....	.....	.....	2	2	.....	15
5	12	.....	.....	.....	1	8	.....	16
5	10	1	1	.....	3	4	.....	17
1	16	.....	1	.....	4	8	.....	18
4	9	.....	.....	.....	8	2	.....	19
14	10	3	1	.....	5	24	.....	20
12	1	.....	7	1	.....	.....	3	6	.....	21
.....	11	.....	.....	.....	7	2	.....	22
8	10	.....	.....	.....	5	2	.....	23
11	11	1	1	.....	1	12	.....	24
13	7	2	1	.....	2	4	.....	25
.....	4	.....	.....	.....	3	3	.....	26
140	4	.....	286	21	8	.....	83	144	.....	Total
.....	2	.....	.....	.....	.....	.....	.....	Unknown
12	7	.....	13	4	.....	.....	.....	1	.....	Nonresidents
152	11	.....	301	25	8	.....	83	145	.....	Grand total
118	2	.....	4	.....	321	29	42	.....	194	80	.....	Corresponding month last year.

for treatment: Scarlet fever, 12; measles, 5, and diphtheria 4.

DIVISION OF CHILD HYGIENE.—MAY, 1913.

1. Medical Inspection of Schools.

Number inspections made	13,612
Number physical examinations made	4,584
Number visits made to homes	42

There were 1,835 pupils excluded from school during the month on account of the following diseases:

Diphtheria	3	Pediculosis	930
Scarlet fever	6	Acute or purulent conjunc-	
Measles	11	tivitis	37
German measles	4	Ringworm	42
Chicken pox	19	Scabies	25
Whooping cough	15	Impetigo	29
Mumps	72	Favus	3
Pulmonary tuberculosis	3	Miscellaneous	544
Acute tonsilitis	92		

There were 10,097 cases of noncontagious disease found, subdivided as follows:

Diseases of oral and respiratory tract	2,223
Diseases of ear	110
Diseases of eye	505
Diseases of skin	870
Dental caries	2,072
Miscellaneous diseases	4,317

2. Physical Examination of Licensed Minors.

There were 144 girls and 220 boys, making a total of 364 persons, between the ages of 14 and 16 years examined during the month. Eighty-six were found to be without defects and 278 with defects, as follows:

Hearing	4	Cardiac disease	7
Eyesight	51	Orthopedic defects	22
Defective nasal breathing	2	Skin	2
Defective teeth	243	Malnutrition	1
Pulmonary disease	1	Miscellaneous	35

3. Pre-Natal and Post-Natal Work.

Pre-Natal.

Number cases	21	Number babies born	10
Number visits	35	Number babies died	4

Mothers attended as follows:

Family physician	3	Midwife	2
Hospital	5		
Breast-fed	5	Bottle-fed	1

Defective conditions noted:

Varicose veins	3
--------------------------	---

Post-Natal.

Number cases	1,256	Number visits	3,413
------------------------	-------	-------------------------	-------

Number visited, not found, on account of removals, wrong addresses, etc., 83.

Breast-fed	985	Breast and bottle-fed	121
Bottle-fed	150		

Defective conditions noted as follows:

Improper feeding	106	Umbilical hernia	15
Ophthalmia	34	Skin disease	21

BACTERIOLOGICAL LABORATORY.

DIPHTHERIA:		GONORRHEA:	
Positive for diagnosis...	165	Positive.....	29
Positive for release.....	113	Negative.....	127
Negative for diagnosis.....	894	Unsatisfactory.....	2— 158
Negative for release.....	266	GONORRHEAL OPHTHALMIA:	
"No growth" cultures.....	12— 1,450	Positive.....	9
TUBERCULOSIS:		Negative.....	63
Positive.....	88	Unsatisfactory.....	5— 77
Negative.....	486	OTHER EXAMINATIONS:	
Unsatisfactory.....	0— 574	*Positive.....	18
TYPHOID:		Negative.....	53
Positive.....	2	Unsatisfactory.....	0— 71
Negative.....	97	BACTERIOLOGICAL MILK	
Atypical.....	1— 100	EXAMINATIONS.....	598
GLANDERS: Strauss. C. F. Ag.		Bacteriological ice cream	
Positive.....	0	examinations.....	7
Negative.....	0		
Unsatisfactory.....	0— 0	Total.....	3,035
		SPECIAL WORK:	
		One sample of water for pollution and	
		bacterial content.	

* K-L Vir. organisms, typhoid conradi, malaria, cholera, pus for T. B. B. coli, G-U. T. B.

INSPECTION OF MILK, VINEGAR, ETC.

Examination as to Statute Requirements.

Samples examined, milk from stores.....	766
" " milk from wagons.....	667
" " milk brought in by citizens.....	29
" " milk for bacteriological examination.....	598
" " ice cream bacteriological examination.....	7
" " vinegar.....	83
" " butter and cheese.....	32
" " eggs.....	23
Total samples.....	2,205

INSPECTION OF DAIRIES.

Satisfactory * on first inspection.....	278
Satisfactory on later inspection.....	292
	570
Unsatisfactory on first inspection.....	156
Unsatisfactory on later inspection.....	48
	204
Total number of inspections.....	774

Dairies having milk rooms.....	398
Dairies without milk rooms.....	376
Number of cattle inspected.....	17,214
Number of dairies prohibited shipping milk to Boston, because of insanitary conditions of premises.....	48

* "Satisfactory" means having a score of at least 45 per cent by the government score card.

INSPECTED AT BRIGHTON ABATTOIR.

Cattle inspected.....	301	Cattle condemned (2 whole)...	710 lbs.
Calves inspected.....	993	" " (parts).....	1,965 lbs.
Sheep inspected.....	—	Calves condemned (2 whole)...	103 lbs.
Swine inspected.....	5,301	" " (parts).....	1,842 lbs.

INSPECTION OF PROVISIONS.—ARTICLES CONDEMNED.

Meats.		Miscellaneous.	
Veal (tainted).....	90 lbs.	Canned goods.....	25 cans.
Veal (immature).....	32 lbs.	Fruit.....	$\frac{1}{2}$ bush.
Mutton (tainted).....	55 lbs.	Frozen canned eggs (decom-	
Beef (tainted).....	329 lbs.	posed).....	450 lbs.
Pork (tainted).....	109 lbs.	Eggs.....	21 doz.
Poultry (tainted).....	125 lbs.		

SANITARY INSPECTION DIVISION.

New reports.....	3,184
Reinspections.....	11,661
New tenement house reports.....	305
Nuisances reported.....	6,409
Legal notices.....	514
Court cases.....	13
Fines.....	\$65
Tenements vacated.....	2
Houses demolished.....	1
Milk applications approved.....	260
Stable permits granted.....	3
Stable hearings.....	5
Stable permits withheld.....	2
Dump permits.....	4

QUARANTINE.

Vessels inspected at quarantine.....	79
Total immigrants arriving in Boston.....	9,662

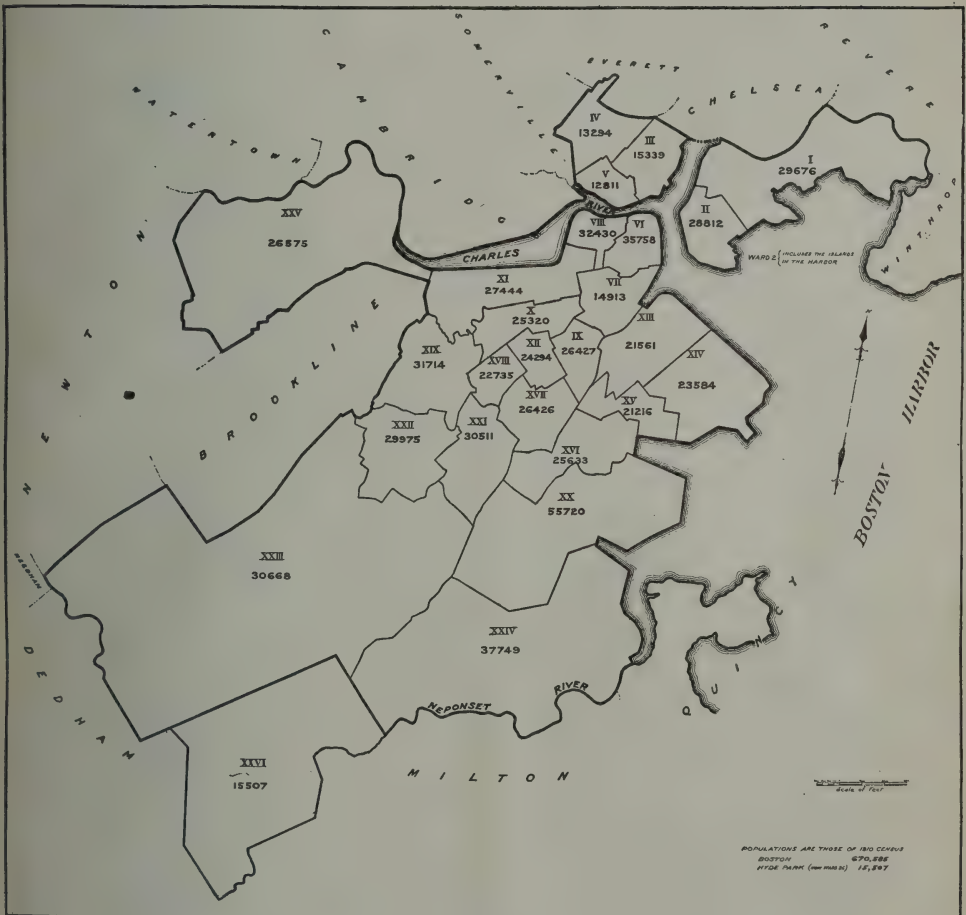
MONTHLY METEOROLOGICAL SUMMARY.
Taken at Weather Bureau, Boston, May, 1913.

DAY.	TEMPERATURE, DEGREES FAHRENHEIT.			Relative Humidity.	Daily Precipitation.	Actual Hours Sun- shine.	WIND.		
	Maximum.	Minimum.	Mean.				Average Hourly Velocity. (Miles.)	Maximum Velocity. (Miles.)	Prevailing Direction.
1.....	57	44	50	42	0	12.2	9.8	14	N. W.
2.....	66	46	56	61	0	11.1	6.8	16	S. W.
3.....	77	50	64	72	0	11.4	7.4	15	E
4.....	53	48	50	84	0	8.5	8.8	14	E.
5.....	78	48	63	74	0	7.7	6.6	14	S. W., S.
6.....	77	53	65	78	T	9.3	7.2	19	S. W.
7.....	70	52	61	72	0	7.1	8.1	17	N. E.
8.....	56	47	52	56	0	14.3	11.0	16	N.
9.....	64	47	56	66	.01	3.8	11.9	19	S. W.
10.....	50	39	44	46	0	10.2	15.5	25	N. W.
11.....	55	37	46	44	0	11.2	15.2	27	N. W.
12.....	64	42	53	38	0	13.4	9.7	16	N. W.
13.....	68	48	58	56	T	9.9	11.9	25	S. W.
14.....	71	49	60	46	0	14.5	11.8	23	N. W.
15.....	65	44	54	47	T	12.3	8.5	17	S. W.
16.....	55	41	48	93	.43	0	9.3	18	N. E.
17.....	50	41	46	89	0	7.9	8.7	14	E.
18.....	52	46	49	84	0	4.6	6.6	13	E.
19.....	66	51	58	61	0	14.4	14.9	26	W.
20.....	68	47	58	46	0	14.5	11.0	24	W., N. W.
21.....	62	51	56	57	T	10.5	8.2	15	N. W., S. E.
22.....	57	50	54	96	.56	0.1	7.1	14	E., S. E.
23.....	59	48	54	97	1.09	0	4.7	12	E.
24.....	58	52	55	94	.27	0	6.9	12	N. E.
25.....	62	48	55	92	.07	7.3	5.8	14	N. E.
26.....	62	50	56	74	0	13.6	8.9	18	N. W.
27.....	58	48	53	76	T	7.2	9.5	19	E.
28.....	52	46	49	93	.63	0	10.4	16	N. E.
29.....	65	51	58	79	.16	7.5	16.1	34	N. W.
30.....	75	51	63	62	0	15.0	15.8	30	W.
31.....	76	56	66	56	T	12.2	8.3	17	W.
Totals.....	—	—	—	—	3.22	271.7	*	—	—
Means.....	62.8	47.5	55.2	68.7	0.10	8.8	60%	29th	N. W.

Latitude 42 degrees 21 minutes.

Longitude 71 degrees 4 minutes.

BOSTON WARD MAP.



MONTHLY BULLETIN

OF THE

HEALTH DEPARTMENT

OF THE

CITY OF BOSTON



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CITY OF BOSTON
PRINTING DEPARTMENT
1913

ORGANIZATION OF THE HEALTH DEPARTMENT

FRANCIS X. MAHONEY, M. D., *Chairman.*

P. H. MULLOWNEY, M. D. V.

F. H. SLACK, M. D., *Secretary.*

MONTHLY BULLETIN

OF THE

HEALTH DEPARTMENT OF THE CITY OF BOSTON.

All communications relating to this publication should be addressed to
BULLETIN OF THE HEALTH DEPARTMENT, 100 Summer St., Boston.

VOL. 2.	BOSTON, JUNE, 1913.	No. 6.
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SUMMARY OF VITAL STATISTICS FOR THE MONTH OF JUNE, 1913.

Boston had 887 deaths in June, 1913, compared with 807 for June of last year; and a death rate of 14.67 against 13.64 for June, 1912. Deaths of nonresidents numbered 120 against 103 a year ago. Deducting deaths of nonresidents the corrected death rate for June, 1913, was 12.69 against 11.90 for June, 1912.

Of deaths from reportable diseases the principal decreases were tuberculosis (all forms) 11; typhoid fever, 6, and measles, 3; and the principal increases were diphtheria, 11; scarlet fever, 7, and whooping cough, 5.

Other important differences were as follows:

June, 1913, decreases compared with June, 1912:

Diarrhea and enteritis (under 2 years)	8
"Other diseases"	10

June, 1913, increases compared with June, 1912:

Organic heart disease, Bright's disease and nephritis	25
Pneumonia	19
Broncho-pneumonia	18
Apoplexy	14
Cancer	11

Ward 11 had the lowest death rate, 7.12, and Ward 7 the highest, 19.32.

There were 14 less deaths under one year than in June, 1912, 8 more under 5 years, and 45 more over 60.

The total deaths under one year numbered 121, which is 19 less than the average for June for the preceding 5 years. Fifty-three of these deaths were due to premature birth,

congenital debility, malformations and other diseases peculiar to early infancy; 22 to diarrhea and enteritis; 15 to pneumonia and broncho-pneumonia; 15 to reportable diseases, and 16 to "other causes."

Of these deaths under one year, Ward 20 had the largest number, 16, and Ward 6 came next with 11.

Seventy were over two weeks old and of these 50 were bottle fed.

VITAL STATISTICS.

GENERAL STATISTICS.

Population, Ward Area, Persons to Acre, and Rates.

	Land Area in Acres.	Population, 1910 Census.	Persons to Acre of Land. (Using Census Population.)	Population, Estimated, July 1, 1913.†	STILLBIRTHS EXCLUDED.		
					Death Rates, 1912. (Population, Estimated.)†	Birth Rates, 1911. (Population, Estimated.)†	Death Rates, 1912, of Children Under One Year, Per 1,000 Births, 1911..
* Boston.....	27,674	686,092	24.8	735,399	16.17	25.99	119.35
Wards 1.....	1,188	29,676	24.9	32,439	13.05	24.90	104.58
2.....	357	28,812	80.7	30,676	17.11	33.37	120.81
3.....	332	15,339	46.2	15,667	15.29	26.84	106.02
4.....	301	13,294	44.1	13,808	18.02	25.50	148.26
5.....	207	12,811	61.9	12,914	16.69	24.28	118.59
6.....	293	35,758	122.0	39,492	16.18	48.81	100.33
7.....	394	14,913	37.9	14,483	20.05	26.57	94.39
8.....	171	32,430	189.6	33,479	12.07	33.21	70.64
9.....	186	26,427	141.5	29,214	15.13	27.40	106.24
10.....	394	25,320	64.3	26,277	11.86	10.51	114.81
11.....	663	27,444	41.4	30,738	9.69	14.22	63.73
12.....	235	24,294	103.4	25,948	14.98	14.57	181.82
13.....	611	21,561	35.3	21,501	17.24	31.11	117.91
14.....	405	23,584	58.2	24,527	14.44	24.14	115.92
15.....	277	21,216	76.6	21,803	14.80	20.25	119.82
16.....	564	25,633	45.6	28,033	12.75	24.23	110.42
17.....	460	26,426	57.4	27,793	15.49	25.65	117.22
18.....	220	22,735	103.3	23,133	17.08	25.08	99.30
19.....	760	31,714	41.7	33,332	13.77	22.77	111.41
20.....	1,716	55,720	32.5	64,723	12.97	20.33	†158.90
21.....	640	30,511	20.5	33,085	13.54	17.53	85.14
22.....	760	29,975	38.1	31,403	12.50	20.55	100.48
23.....	7,617	30,668	4.0	33,423	12.13	19.93	94.94
24.....	3,252	37,749	11.6	41,695	12.63	23.73	103.11
25.....	2,740	26,575	9.7	29,661	11.95	24.73	96.21
26.....	2,869	15,507	5.4	16,152	12.29	29.59	107.30

* Hyde Park was annexed to Boston January 1, 1912, and became Ward 26. Under "Boston," in the above table, Hyde Park statistics are included.

† Population estimated by arithmetical method, using the censuses of 1905 and 1910.

‡ An infant asylum is located in this ward.

June. General Summary.

	1913.	1912.
Total deaths	887	807
Population, estimated*	735,399	720,031
Death rate per 1,000	14.67	13.64
Deaths of nonresidents	120	103
Corrected death rate†	12.69	11.90

* Population estimated by arithmetical method, using the censuses of 1905 and 1910.

† Nonresidents not included.

June, 1913. Statement of Deaths.

Total number (stillbirths excluded)		NATIVITY.	
	887	United States	532
		Ireland	145
		England and Wales	17
		Scotland	9
SEX.		Germany	19
Males	474	Canada	61
Females	413	Italy	33
		Russia and Poland	33
CONDITION.		Sweden and Norway	13
Single	408	France	1
Married	281	Other countries	14
Widowed	186	Unknown	10
Divorced	3		
Unknown	9	NATIVITY OF MOTHERS.	
		United States	217
		Ireland	288
		England and Wales	29
		Scotland	14
		Germany	24
		Canada	78
		Italy	63
		Russia and Poland	59
		Sweden and Norway	14
		France	1
		Other countries	20
		Unknown	80
COLOR.			
White	858		
Black (negro or mixed)	27		
Chinese	2		
Deaths of children:			
Under one year	121		
Under two years	159		
Under five years	201		
Stillbirths during the month,	70		

VITAL STATISTICS.

June, 1913.

Mortality by

Abridged List Class Number.	CAUSES OF DEATH.	TOTALS.		Under 1 Year.	1 Year.	2 Years.	3 Years.	4 Years.	Under 5 Years.	5 to 9 Years.	10 to 14 Years.	15 to 19 Years.
		1913.	1912.									
	Total, all causes.....	{1913 1912	887 807	121 135	38 29	20 20	10 1	12 8	201 193	23 18	12 10	14 17
1	Typhoid fever.....		2									
3	Malarial fever.....											
4	Smallpox.....											
5	Measles.....		6	9	1	4	1		6			
6	Scarlet fever.....		8	1		2	1		4	3	1	
7	Whooping cough.....		6	1	4		1	1	6			
8	Diphtheria and croup.....		18	7	2	2	6	1	2	13	2	1
9	Influenza.....		2	2								
12	Other epidemic diseases.....		3	6	2	1			3			
13	Tuberculosis of the lungs.....		80	99		2	2	1	1	6		1
14	Tuberculous meningitis.....		16	12	5	3	1		9	3	1	1
15	Other forms of tuberculosis.....		11	7	1		3	1	1	6		1
16	Cancer, malignant tumor.....		68	57								
17	Simple meningitis (except cerebro-spinal meningitis).		8	3		4	1		5			
17a	Cerebro-spinal meningitis.....		3	3	2				2			
18	Apoplexy and softening of the brain.		48	34								
19	Organic heart diseases.....		121	96		1			1	3	1	1
20	Acute bronchitis.....		4	2	2				2			
21	Chronic bronchitis.....		1	1								
22	Pneumonia (except broncho-pneumonia).		66	47	6	5	1	1	13	1	1	
22a	Broncho-pneumonia.....		34	16	9	4		1	14	1		
23	Other respiratory diseases.....		6	7	1	1			2			
24	Diseases of the stomach (cancer excepted).		3	8								
25	Diarrhea and enteritis (under two years).		26	34	22	4			26			
26	Appendicitis and typhlitis.....		5	7							1	1
27	Hernia, intestinal obstruction.....		7	9		1			1			
28	Cirrhosis of liver.....		7	3								
29	Bright's disease and nephritis.....		64	64	1				1	1		
30	Diseases of women (not cancer)...		4	4								
31	Puerperal septicemia.....		4	3								
32	Other puerperal diseases.....		7	4								
33	Congenital debility and malformations.		44	40	41		1		42	1		
34	Old age.....											
35	Violent deaths.....		60	59	2	2	1	1	6	12	4	1
36	Suicide.....		9	6								1
37	Other diseases.....		136	146	20	2	1	2	2	27	4	3
38	Ill-defined causes.....			2								

VITAL STATISTICS.

Cause and Age.

June, 1913.

20 to 24 Years.	25 to 29 Years.	30 to 34 Years.	35 to 39 Years.	40 to 44 Years.	45 to 49 Years.	50 to 54 Years.	55 to 59 Years.	60 to 64 Years.	65 to 69 Years.	70 to 74 Years.	75 to 79 Years.	80 to 84 Years.	85 to 89 Years.	90 Years and over.	Sex.		Abridged List Class Number.
															Males.	Females.	
34 34	37 43	43 48	47 42	65 50	50 45	42 49	66 43	61 49	55 49	59 50	44 28	25 19	12 18	4 2	474 429	413 378	
1		1													2		1
																	3
																	4
															3	3	5
															5	3	6
															2	4	7
1							1								8	10	8
							1	1							2		9
															2	1	12
12	13	7	10	7	6	6	2	1	1	3					39	41	13
1		1													8	8	14
	1	1		1											5	6	15
			2	5	5	5	11	11	12	7	7	1	1	1	29	39	16
		2		1											1	7	17
				1												3	17a
			1	5	1	1	5	8	4	6	8	5	3	1	26	22	18
2	1	3	2	4	7	9	11	23	13	16	12	7	4	1	66	55	19
											2				1	3	20
											1				1		21
2	2	2	3	7	5	8	8	4	4	2	1	3			40	26	22
	1	3	2	1	1		1	1	1	3	3	2			16	18	22a
		1		1	1			1							5	1	23
							1	1				1			1	2	24
															14	12	25
		1	1	1											5		26
1			1	2	1			1							3	4	27
			1	1	1	1	2		1						6	1	28
5	1	4	5	3	2	6	10	6	8	7	3	1	1		30	34	29
1				3												4	30
1	1	1	1													4	31
1	2	3	1													7	32
				1											28	16	33
																	34
4	7	4	4	8	5	2	2		1	2		1			45	15	35
		3	1	2	2										8	1	36
2	1	6	12	11	13	4	11	3	10	13	7	4	3	1	73	63	37
																	38

Abridged List Class Number.	CAUSES OF DEATH.	Boston.	WARD RESIDENCE.										
			1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
	All causes.....	887	40	23	15	18	17	36	23	32	26	17	18
	Rates per 1,000 popula- (1913) 14.67 15.00 9.12 11.65 15.86 16.02 11.09 19.32 11.64 10.83 7.87 7.12												
	tion..... (1912) 13.64 12.33 17.38 11.73 9.81 9.44 15.55 17.48 9.17 16.31 7.02 5.32												
1	Typhoid fever.....	2	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
3	Malarial fever.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
4	Smallpox.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
5	Measles.....	6	1	1	.....	.....	.....	.....	.....	.....	.....	.....	1
6	Scarlet fever.....	8	.....	.....	.....	.....	1	.....	.....	1	.....	.....	.....
7	Whooping cough.....	6	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
8	Diphtheria and croup.....	18	1	1	.....	.....	.....	2	.....	1	1	.....	.....
9	Influenza.....	2	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
12	Other epidemic diseases.....	3	.....	.....	.....	.....	.....	1	.....	1	.....	.....	.....
13	Tuberculosis of the lungs.....	80	2	1	2	3	5	.....	4	3	4	1	1
14	Tuberculous meningitis.....	16	.....	2	.....	.....	.....	1	1	1	.....	.....	.....
15	Other forms of tuberculosis....	11	.....	.....	.....	.....	.....	1	.....	1	1	.....	.....
16	Cancer, malignant tumor.....	68	6	1	1	2	1	1	.....	.....	.....	3	2
17	Simple meningitis (except	8	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
17a	cerebro-spinal meningitis). ..	3	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....
18	Cerebro-spinal meningitis.....	3	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
18	Apoplexy and softening of the	48	3	1	2	1	2	1	1	.....	.....	1	.....
19	brain.....	121	7	7	1	1	2	4	2	8	2	1	6
19	Organic heart diseases.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
20	Acute bronchitis.....	4	.....	.....	.....	.....	.....	1	1	.....	.....	.....	.....
21	Chronic bronchitis.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
22	Pneumonia (except broncho-	66	2	1	.....	.....	1	9	5	3	5	.....	.....
22a	pneumonia). ..	34	.....	.....	1	.....	1	5	.....	.....	1	1	2
23	Broncho-pneumonia.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
23	Other respiratory diseases.....	6	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....
24	Diseases of the stomach (cancer	3	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
25	excepted). ..	26	1	.....	1	.....	.....	.....	2	.....	.....	.....	1
25	Diarrhea and enteritis (under	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
26	two years). ..	5	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
26	Appendicitis and typhlitis.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
27	Hernia, intestinal obstruction,	7	.....	.....	.....	1	.....	1	.....	.....	.....	.....	.....
28	Cirrhosis of liver.....	7	1	.....	.....	.....	.....	1	.....	2	.....	.....	.....
29	Bright's disease and nephritis..	64	1	2	1	1	1	1	1	3	2	2	.....
30	Diseases of women (not cancer),	4	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....
31	Puerperal septicemia.....	4	1	1	.....	.....	.....	.....	.....	.....	.....	1	.....
32	Other puerperal diseases.....	7	.....	.....	.....	.....	1	1	.....	.....	1	.....	.....
33	Congenital debility and mal-	44	1	.....	1	.....	.....	1	1	1	2	1	1
34	formations.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
34	Old age.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
35	Violent deaths.....	60	3	2	.....	3	1	.....	3	2	2	1	3
36	Suicide.....	9	.....	.....	.....	.....	.....	1	.....	1	.....	.....	.....
37	Other diseases.....	136	8	3	5	5	1	4	2	3	5	4	1
38	Ill defined causes.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
	Total deaths under one year..	121	4	4	2	3	.....	11	2	2	4	1	2

VITAL STATISTICS.

Cause and Residence.

June, 1913.

WARD RESIDENCE.																Boston, Ward Unknown.	Nonresidents.	Unknown.	Abridged List Class Number.
12.	13.	14.	15.	16.	17.	18.	19.	20.	21.	22.	23.	24.	25.	26.					
26	26	36	21	28	26	29	41	66	37	38	27	51	26	15	1	120	8	....
12.19	14.71	17.86	11.72	12.15	11.38	15.25	14.97	12.41	13.61	14.72	9.83	14.88	10.66	11.30	....	....	....	....
11.96	14.13	14.06	11.26	12.49	8.89	14.28	7.78	12.58	13.19	13.76	9.71	11.43	9.75	6.10	....	....	....	....
....	....	....	....	1	....	....	....	....	....	1	....	....	....	....	....	....	....	1
....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	3
....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	4
....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	5
....	1	....	....	....	....	....	....	1	....	....	....	1	....	....	....	1	....	6
....	1	....	....	....	1	1	....	2	....	....	....	....	....	....	....	1	....	7
....	....	....	....	....	....	1	1	2	....	1	1	....	....	1	....	5	....	8
....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	9
....	....	....	....	....	....	....	1	....	....	....	....	....	....	....	....	....	....	12
3	3	3	1	3	4	3	5	4	2	6	2	5	1	1	....	6	2	13
....	1	....	....	....	1	....	2	....	2	1	....	1	....	....	....	3	....	14
....	....	....	....	....	....	1	1	1	....	....	2	....	....	....	....	3	....	15
2	....	2	2	6	2	3	2	6	3	....	3	6	1	....	....	12	1	16
....	....	1	....	....	....	....	....	1	....	....	1	1	3	....	....	1	....	17
....	....	1	....	....	....	....	....	....	....	....	1	....	....	....	....	....	....	17a
1	....	2	1	2	1	3	2	5	4	1	....	5	4	....	....	5	....	18
7	2	4	5	....	5	5	8	8	5	8	2	6	9	2	....	4	....	19
....	2	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	20
....	....	....	....	....	....	....	....	....	....	....	....	1	....	....	....	....	....	21
3	4	2	1	4	3	2	5	4	2	1	1	1	4	....	1	1	1	22
1	....	4	....	4	1	....	2	1	3	1	....	3	1	....	....	2	....	22a
....	....	....	....	....	....	....	....	....	....	2	....	....	....	....	....	3	....	23
....	....	....	....	....	....	....	....	....	1	1	....	....	....	....	....	....	....	24
....	1	1	....	....	....	....	....	5	1	....	....	1	1	2	....	7	2	25
....	....	....	....	....	....	....	....	1	....	1	1	....	....	....	....	2	....	26
1	....	....	....	....	1	1	....	....	....	1	....	....	....	....	....	1	....	27
....	....	....	....	....	....	1	....	....	....	1	1	....	....	....	....	....	....	28
1	6	4	6	1	1	3	3	5	6	2	1	3	....	3	....	4	....	29
1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	2	....	30
....	....	....	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	31
....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	3	....	32
2	....	3	2	2	....	1	2	8	....	....	5	1	1	1	....	7	....	33
....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	34
2	....	3	2	1	1	2	2	....	2	1	3	3	1	2	....	13	2	35
1	....	....	....	....	1	....	1	1	1	....	....	....	....	....	....	2	....	36
1	5	5	1	4	4	1	3	11	5	9	3	13	....	3	....	27	....	37
....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	38
3	5	4	2	4	1	2	7	16	1	3	5	7	2	3	....	19	2	....

VITAL STATISTICS.

June, 1913, Infant Mortality.

Detailed List Class Number.	CAUSES OF DEATH.	JUNE TOTALS, UNDER 1 YEAR.		Under 1 Day.	1 to 2 Days.	2 to 3 Days.	3 Days to 1 Week.	1 to 2 Weeks.	2 to 3 Weeks.	3 Weeks to 1 Month.	1 to 2 Months.	2 to 3 Months.	3 to 6 Months.	6 to 9 Months.	9 to 12 Months.	AGED 2 WEEKS AND OVER.		Nonresidents.
		1913.	1912.													Breast Fed.	Bottle Fed.	
	Total.....	121	135	25	5	5	11	5	4	4	6	10	20	16	10	20	50	19
	Male.....	66	71	14	3	5	8	2	3	3	4	4	10	5	5	8	26	13
	Female.....	55	64	11	2	...	3	3	1	1	2	6	10	11	5	12	24	6
	White.....	118	132	25	5	5	10	5	4	4	6	10	19	15	10	19	49	19
	Colored.....	3	3	...	...	...	1	...	...	...	...	...	1	1	...	1	1	...
1	Typhoid fever.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
5	Smallpox.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
6	Measles.....	1	3	...	...	...	...	...	...	...	...	...	...	...	1	...	1	...
7	Scarlet fever.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
8	Whooping cough.....	4	1	...	...	...	...	...	...	...	1	...	1	2	...	...	4	...
9	Diphtheria and croup.....	2	1	...	...	...	...	...	...	...	...	1	...	...	1	...	2	1
10	Influenza.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
14	Dysentery.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
18	Erysipelas.....	2	3	...	...	...	...	...	...	...	1	1	...	...	...	1	1	...
19	Other epidemic diseases.....	1	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...
20	Pus-infection and septicemia.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
24	Tetanus.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
28	Tuberculosis of the lungs.....	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
29	Acute miliary tuberculosis.....	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
30	Tuberculous meningitis.....	5	2	...	...	...	...	...	...	...	...	...	3	1	1	2	3	1
31/35/	Other forms of tuberculosis.....	1	...	...	...	...	...	...	...	...	...	1	...	...	...	...	1	1
36	Rickets.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
37	Syphilis.....	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
38	Gonococcus infection.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
61	Simple meningitis.....	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
61a	Cerebro-spinal fever.....	2	...	...	...	...	...	...	...	...	...	...	2	...	...	1	1	...
63a	Acute poliomyelitis.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
71	Convulsions.....	2	2	...	1	...	...	...	...	...	...	1	...	...	...	1	...	...
76	Diseases of the ears.....	1	1	...	...	...	...	...	...	...	...	...	1	...	...	1	...	...
79	Organic diseases of the heart.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
89	Acute bronchitis.....	2	2	...	...	1	...	...	...	...	1	...	...	...	...	1	...	...
91	Broncho-pneumonia.....	9	9	...	...	...	...	...	1	1	...	...	1	6	...	5	4	...
92	Pneumonia.....	6	9	...	...	1	...	...	...	...	...	...	...	2	3	3	2	...
93	Pleurisy.....	1	...	...	...	...	...	...	...	...	...	...	...	1	...	...	1	1
103	Other diseases of stomach.....	...	2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
104	Diarrhea and enteritis.....	22	30	...	...	1	...	...	1	1	1	5	8	2	3	1	20	7
108	Appendicitis and typhlitis.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...

VITAL STATISTICS.

June, 1913, Infant Mortality.—*Concluded.*

Detailed List Class Number.	CAUSES OF DEATH.	JUNE TOTALS, UNDER 1 YEAR.		Under 1 Day.	1 to 2 Days.	2 to 3 Days.	3 Days to 1 Week.	1 to 2 Weeks.	2 to 3 Weeks.	3 Weeks to 1 Month.	1 to 2 Months.	2 to 3 Months.	3 to 6 Months.	6 to 9 Months.	9 to 12 Months.	AGED 2 WEEKS AND OVER.		Nonresidents.
		1913.	1912.													Breast Fed.	Bottle Fed.	
109	Hernias,intestinal obstruction,		1															
117	Simple peritonitis.																	
119	Acute nephritis.	1													1		1	
143	Furuncle.																	
144	Acute abscess.	1												1			1	1
145	Other diseases of skin, etc.		1															
150a	Hydrocephalus.																	
b	Congenital malformations of heart.	9	8	2		2	2			1		1	1			2	1	
c	Other malformations.	2	1	2														
151a	Premature birth.	26	23	11	3	1	4	4	2		1					1	2	4
b	Congenital debility.	4	7				1			1	1		1				3	2
152a	Injuries at birth.	7	7	7														
b	Other causes peculiar to early infancy.	5	7	3		1	1											
167	Burns (conflagrations excepted).	1	1										1				1	
168	Absorption of deleterious gases,																	
172	Traumatism by fall.																	
182)	Homicide.		1															
184)																		
187)	Ill-defined diseases.		1															
189)																		
	Other causes.	4	6		1		1						1	1		1	1	1
	Breast fed *.	20	21						2	2	2	3	4	5	2	20		1
	Bottle fed *.	50	63						2	2	4	7	16	11	8		50	16
	Nonresidents.	19	17				2		1	1	1	4	4	4	2	1	16	19

* Aged two weeks and over.

Additional Deaths for Other Months.

March, 1913.—1 female; traumatism by fall; white; aged 45 years; condition unknown; residence unknown; birthplace unknown; birthplace of mother unknown.

April, 1913.—1 male; tuberculosis; white; aged 29 years; condition unknown; residence Ward 9; born in Russia or Poland; mother born in Russia or Poland.

1 female; alcoholism; white; aged 46 years; single; residence Ward 9; born in United States; birthplace of mother unknown.

1 male; organic diseases of the heart; white; aged 37 years; single; residence Ward 6; birthplace unknown; birthplace of mother unknown.

1 male; suicide by cutting or piercing instruments; white; aged 50 years; married; residence Ward 9; born in Ireland; birthplace of mother unknown.

May, 1913.—1 female; tuberculosis; white; aged 27 years; single; residence Ward 25; born in Canada; mother born in Canada.

1 male; alcoholism; black; aged 43 years; widower; residence Ward 9; birthplace unknown; birthplace of mother unknown.

1 male; alcoholism; white; aged 54 years; condition unknown; Boston resident; birthplace unknown; birthplace of mother unknown.

1 male; alcoholism; white; aged 55 years; condition unknown; residence unknown; birthplace unknown; birthplace of mother unknown.

1 male; organic diseases of the heart; white; aged 73 years; condition unknown; residence unknown; birthplace unknown; birthplace of mother unknown.

1 male; suicide by poison; white; aged 55 years; condition unknown; residence unknown; birthplace unknown; birthplace of mother unknown.

1 male; suicide by firearms; white; aged 40 years; condition unknown; residence Ward 9; birthplace unknown; birthplace of mother unknown.

1 male; homicide by cutting or piercing instruments; white; aged 21 years; single; residence Ward 6; born in Italy; mother born in Italy.

**DIVISION OF COMMUNICABLE DISEASES,
June, 1913.**

Medical Inspectors.

New cases visited:

Diphtheria:

a. Isolation	93
b. Diagnosis	5

Scarlet fever:

a. Isolation	69
b. Diagnosis	15
c. Release	50

Measles:

a. Isolation	5
b. Diagnosis	4

Varicella:

a. Isolation	7
b. Diagnosis	5

Ophthalmia neonatorum 29

Tuberculosis 38

Typhoid fever 10

Cerebro-spinal meningitis 1

Poliomyelitis 1

Mumps 2

Deaths investigated 14

Vaccinations performed 72

Certificates of vaccination issued 0

Nurses.

New cases visited:

Diphtheria	176
Scarlet fever	106
Measles	535
Varicella	102
Typhoid fever	10
Cerebro-spinal meningitis	3
Whooping cough	92
Trachoma	2
Ophthalmia neonatorum	76
Release cultures taken for diphtheria	166

Old cases visited:

Diphtheria	217
Scarlet fever	371
Measles	503
Varicella	64
Typhoid fever	27
Whooping cough	57
Ophthalmia neonatorum	268
Cerebro-spinal meningitis	2

Disinfections.

Diphtheria	175
Scarlet fever	98
Tuberculosis	223

Forcible Removals.

Tuberculosis	3
Scarlet fever	1
Diphtheria	1

DIVISION OF

June, 1913. Cases Reported.

WARDS.	Anterior Poliomyelitis.	Actinomycosis.	Asiatic Cholera.	Bubonic Plague.	Cerebro-spinal Meningitis.	Diphtheria.	Glanders.	Leprosy.	Malaria.	Malignant Pustule.	Measles.	Mumps.	Ophthalmia Neonatorum.
1.....						4					33	1	3
2.....						14					16	1	9
3.....						3					26	3	...
4.....						2					26	2	3
5.....						1					21	3	...
6.....						17					28	3	8
7.....						4					10	6	5
8.....					1	3					24	10	5
9.....						8					6	2	6
10.....						2					3	...	2
11.....						3					10	9	...
12.....						17			1		14	10	11
13.....						3					4	1	12
14.....					1	7					10	5	6
15.....						4					11	9	2
16.....						3					23	7	1
17.....						7					2	7	2
18.....						16					2	3	4
19.....					1	15					12	2	3
20.....						16					66	8	9
21.....						4					14	4	4
22.....		1				10					10	2	5
23.....					1	5					62	2	3
24.....						8					109	7	3
25.....						3					11	14	...
26.....						4					31	...	1
Total.....		1			4	183			1		584	121	107
Unknown.....													
Nonresidents.....						2					1	...	8
Grand total.....		1			4	185			1		585	121	115
Corresponding month last year..	1				3	93		1	7	1	605	21	97

Included in the nonresidents were the following cases brought to Boston

COMMUNICABLE DISEASES.

Cases Reported.

June, 1913.

Scarlet Fever.	Smallpox.	Tetanus.	Trachoma.	Trichinosis.	Tuberculosis (Pulmonary and Miliary).	Tuberculosis (Other Forms).	Typhoid Fever.	Typhus Fever.	Varicella.	Whooping Cough.	Yellow Fever.	WARDS.
7	8	2	.....	.....	1	5	.....	1
6	19	2	1	.....	10	1	.....	2
2	3	.....	.....	.....	1	2	.....	3
1	5	.....	.....	.....	.....	2	.....	4
5	3	2	.....	.....	.....	2	.....	5
3	1	.....	26	5	.....	.....	6	4	.....	6
1	13	1	.....	.....	1	3	.....	7
7	2	.....	23	2	1	.....	20	6	.....	8
2	20	3	.....	.....	8	6	.....	9
.....	8	2	.....	.....	1	2	.....	10
.....	10	1	.....	.....	.....	.....	.....	11
6	10	1	3	.....	3	4	.....	12
3	13	2	1	.....	1	6	.....	13
5	14	2	1	.....	3	1	.....	14
3	9	1	1	.....	2	1	.....	15
4	12	.....	1	.....	9	3	.....	16
3	16	1	.....	.....	.....	11	.....	17
.....	11	.....	.....	.....	2	6	.....	18
7	1	.....	13	1	.....	.....	6	2	.....	19
13	22	.....	1	.....	13	13	.....	20
10	7	2	1	.....	6	3	.....	21
1	7	3	.....	.....	5	.....	.....	22
6	6	.....	1	.....	7	.....	.....	23
7	11	1	1	.....	2	6	.....	24
8	3	.....	1	.....	1	1	.....	25
1	4	.....	.....	.....	.....	1	.....	26
111	4	.....	296	34	14	.....	108	91	.....	Total
.....	Unknown
22	9	.....	16	11	1	.....	.....	.....	.....	Nonresidents
133	13	.....	312	45	15	.....	108	91	.....	Grand total
60	4	.....	253	25	56	.....	86	46	.....	Corresponding month last year.

for treatment: Typhoid fever, 1; diphtheria, 2; scarlet fever, 22; measles, 1.

DIVISION OF CHILD HYGIENE.—JUNE, 1913.

1. Medical Inspection of Schools.

Number inspections made	6,074
Number physical examinations made	1,744
Number visits made to homes	14

There were 850 pupils excluded from school during the month on account of contagious diseases, as follows:

Diphtheria	2	Trachoma	2
Scarlet fever	1	Acute or purulent conjunctivitis	12
Measles	7	Ringworm	8
Chicken pox	24	Scabies	17
Whooping cough	5	Impetigo	19
Mumps	37	Favus	1
Pulmonary tuberculosis(?),	1	Miscellaneous	532
Acute tonsilitis	38		
Pediculosis	145		

There were 3,033 cases of noncontagious disease found, subdivided as follows:

Diseases of oral and respiratory tract	491
Diseases of the ear	33
Diseases of the eye	202
Diseases of skin	332
Dental caries	323
Miscellaneous diseases	1,682

2. Physical Examination of Licensed Minors.

There were 661 girls and 586 boys between the ages of 14 and 16 years examined during the month. Four hundred and thirty-four were found without defects and 813 with defects, as follows:

Defective hearing	2	Cardiac disease	7
Defective eyesight	99	Orthopedic defects	12
Defective nasal breathing	11	Skin	1
Hypertrophied tonsils	57	Malnutrition	1
Defective teeth	760	Miscellaneous	61
Pulmonary disease	2		

3. Pre-Natal and Post-Natal Work.

Pre-Natal.

Number cases	23	Number babies born	8
Number visits	40	Breast-fed	7
		Bottle-fed	1

Defects noted as follows:

Varicose veins	6
--------------------------	---

Mothers attended as follows:

Family physician	6	Hospital	2
----------------------------	---	--------------------	---

Post-Natal.

Number cases	1,163	Number visits	3,338
------------------------	-------	-------------------------	-------

Number babies not found, on account of wrong address, removal, etc., 106.

Breast-fed	963	Breast and bottle-fed	53
Bottle-fed	150		

Defective conditions noted as follows:

Improper feeding	75	Umbilical hernia	25
Ophthalmia	29	Skin disease	28

BACTERIOLOGICAL LABORATORY.

DIPHTHERIA:			GONORRHEA:		
Positive for diagnosis...	121		Positive.....	33	
Positive for release.....	80		Negative.....	110	
Negative for diagnosis.....	689		Unsatisfactory.....	1— 144	
Negative for release.....	257		GONORRHEAL OPHTHALMIA:		
"No growth" cultures..	16— 1,163		Positive.....	2	
TUBERCULOSIS:			Negative.....	65	
Positive.....	95		Unsatisfactory.....	5— 72	
Negative.....	443		OTHER EXAMINATIONS:		
Unsatisfactory.....	0— 538		*Positive.....	7	
TYPHOID:			Negative.....	41	
Positive.....	11		Unsatisfactory.....	1— 49	
Atypical.....	7		BACTERIOLOGICAL MILK		
Negative.....	122— 140		EXAMINATIONS.....	540	
GLANDERS: Strauss. C. F. Ag.			Bacteriological ice cream		
Positive.....	0		examinations.....	5	
Negative.....	0		Total.....	2,651	
Unsatisfactory.....	0— 0		SPECIAL WORK:		
			One sample of water for pollution and		
			bacteriological content.		

* K-L vir.; cerebro-spinal fluid; organisms, malaria, G-U. T. B., paratyphoids.

INSPECTION OF MILK, VINEGAR, ETC.

Examination as to Statute Requirements.

Samples examined, milk from stores.....	440
" " milk from wagons.....	627
" " milk brought in by citizens.....	22
" " milk for bacteriological examination.....	540
" " ice cream, bacteriological examination.....	5
" " vinegar.....	40
" " butter and cheese.....	10
" " meat.....	2
Total samples.....	1,686

INSPECTION OF DAIRIES.

Satisfactory * on first inspection.....	147
Satisfactory on later inspection.....	274
	421
Unsatisfactory on first inspection.....	55
Unsatisfactory on later inspection.....	32
	87
Total number of inspections.....	508
Dairies having milk rooms.....	294
Dairies without milk rooms.....	214
Number of cattle inspected.....	13,104
Number of dairies prohibited shipping milk to Boston, because of insanitary conditions of premises.....	28

* "Satisfactory" means having a score of at least 45 per cent by the government score card.

INSPECTED AT BRIGHTON ABATTOIR.

Cattle inspected.....	311	Cattle condemned (1 whole).....	350 lbs.
Calves inspected.....	598	" " (parts of 29).....	1,030 lbs.
Sheep inspected.....	—	Sheep condemned.....	— lbs.
Swine inspected.....	4,017	Swine condemned (1 whole).....	150 lbs.
		" " (parts of 147).....	947 lbs.

INSPECTION OF PROVISIONS.— ARTICLES CONDEMNED.

Meats.		Miscellaneous.	
Veal (immature).....	35 lbs.	Fruit.....	5 bush.
Mutton (tainted).....	45 lbs.		
Beef (tainted).....	25 lbs.		
Pork (tainted).....	— lbs.		
Poultry (tainted).....	221 lbs.		

SANITARY INSPECTION DIVISION.

New reports.....	2,816
Reinspections.....	9,904
New tenement house reports.....	337
Nuisances reported.....	6,096
Legal notices.....	413
Court cases.....	11
Fines.....	\$590
Tenements vacated.....	4
Milk applications approved.....	339
Stable permits granted.....	2
Stable hearings.....	2
Stable permits refused.....	1
Dump permits granted.....	1

QUARANTINE.

Vessels inspected at quarantine.....	72
Total immigrants arriving in Boston.....	9,748

MONTHLY METEOROLOGICAL SUMMARY.

Taken at Weather Bureau, Boston, June, 1913.

DAY.	TEMPERATURE, DEGREES FAHRENHEIT.			Relative Humidity.	Daily Precipitation.	Actual Hours Sun- shine.	WIND.		
	Maximum.	Minimum.	Mean.				Average Hourly Velocity. (Miles.)	Maximum Velocity. (Miles.)	Prevailing Direction.
1.....	80	57	68	60	0	15.0	12.0	25	S. W.
2.....	77	63	70	50	T	11.8	13.4	27	S. W.
3.....	78	57	68	60	0	13.6	11.4	25	S. W.
4.....	73	56	64	75	0	12.6	8.8	23	E.
5.....	71	56	64	77	0	13.4	8.0	16	E.
6.....	78	55	66	74	0	11.8	12.7	24	S. W.
7.....	86	57	72	76	.34	8.5	13.0	40	S. W.
8.....	61	50	56	61	0	12.6	8.9	16	N. W.
9.....	61	48	54	72	T	11.0	8.4	14	N. W.
10.....	72	47	60	72	0	15.2	9.0	16	N. W.
11.....	82	55	68	44	0	15.2	13.0	23	W.
12.....	74	53	64	66	0	15.2	11.5	28	E.
13.....	77	51	64	75	0	15.2	9.4	19	S. W.
14.....	85	60	72	54	0	13.3	10.5	22	N. W.
15.....	75	59	67	67	0	15.2	9.5	18	E.
16.....	91	61	76	58	0	12.6	12.8	20	W.
17.....	83	62	72	56	0	13.0	10.8	22	N. W.
18.....	70	56	63	49	0	13.6	10.1	17	N. W.
19.....	72	57	64	60	.08	10.6	9.5	22	W., S. W.
20.....	68	57	62	89	.04	1.2	8.1	18	S.
21.....	72	58	65	83	.07	4.8	6.2	14	E.
22.....	82	62	72	70	0	14.0	9.2	17	N. W.
23.....	82	64	73	62	0	15.2	7.2	18	E.
24.....	86	64	75	57	0	15.2	9.8	17	S. W.
25.....	70	54	62	86	.11	2.6	10.8	20	N. E., E.
26.....	66	56	61	94	0	0	6.5	15	E., S. E.
27.....	90	64	77	78	0	12.4	11.5	19	W.
28.....	87	67	77	50	T	11.5	10.7	20	N. W.
29.....	84	63	74	50	0	15.2	7.3	15	N. W., S. W.
30.....	87	61	74	60	0	11.5	12.9	26	S. W.
Totals.....	.....	.....	.....	.....	0.64	353.0	.....	.....	.....
Means.....	77.3	57.7	67.5	66.2	0.02	78%	10.1	7th	S. W.

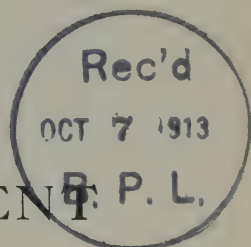
Latitude 42 degrees 21 minutes.

Longitude 71 degrees 4 minutes.

BOSTON WARD MAP.



MONTHLY BULLETIN
OF THE
HEALTH DEPARTMENT
OF THE
CITY OF BOSTON



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ORGANIZATION OF THE HEALTH DEPARTMENT

FRANCIS X. MAHONEY, M. D., *Chairman.*

P. H. MULLOWNEY, M. D. V.

F. H. SLACK, M. D., *Secretary.*

MONTHLY BULLETIN

OF THE

HEALTH DEPARTMENT OF THE CITY OF BOSTON.

All communications relating to this publication should be addressed to
BULLETIN OF THE HEALTH DEPARTMENT, 100 Summer St., Boston.

VOL. 2.

BOSTON, JULY, 1913.

NO. 7.

SUMMARY OF VITAL STATISTICS FOR THE MONTH OF JULY, 1913.

Boston had 873 deaths in July, 1913, compared with 894 for July of last year; and a death rate of 13.98 against 14.62 for July, 1912. Deaths of nonresidents numbered 131 against 125 a year ago. Deducting deaths of nonresidents the corrected death rate for July, 1913, was 11.88 against 12.57 for July, 1912.

Of deaths from reportable diseases the principal decrease was tuberculosis (all forms), 9; and the principal increases were diphtheria, 8, and measles, 3.

Other important differences were as follows:

July, 1913, decreases compared with July, 1912:

"Other diseases"	26
Diarrhea and enteritis (under 2 years)	24
Congenital debility and malformations	12
Cancer	7
Pneumonia	5

July, 1913, increases compared with July, 1912:

Violent deaths	19
Organic heart diseases, Bright's disease and nephritis	14
Hernia, intestinal obstruction	8
Apoplexy	6

Ward 11 had the lowest death rate, 4.98, and Ward 7 the highest, 18.70. It should be noted that a large part of the population of Ward 11 is out of the city during the summer months.

There were 39 less deaths under one year than in July, 1912, 42 less under 5 years, and 3 less over 60.

Total deaths under one year numbered 163, which is 77 less than the average number for July for the preceding five years.

Of these 163 deaths, 66 were due to premature birth, congenital debility, malformations and other diseases peculiar to early infancy; 53 to diarrhea and enteritis, 16 to reportable diseases, 12 to pneumonia and broncho-pneumonia, and 16 to other causes. Of these deaths of infants, Ward 6 had the largest number, 15.

One hundred and fourteen were over two weeks old and 82 of these were bottle fed.

VITAL STATISTICS.

GENERAL STATISTICS.

Population, Ward Area, Persons to Acre, and Rates.

	Land Area in Acres.	Population, 1910 Census.	Persons to Acre of Land. (Using Census Population.)	Population, Estimated, July 1, 1913.†	STILLBIRTHS EXCLUDED.		
					Death Rates, 1912. (Population, Estimated.)†	Birth Rates, 1911. (Population, Estimated.)†	Death Rates, 1912. of Children Under One Year, Per 1,000 Births, 1911.
* Boston.....	27,674	686,092	24.8	735,399	16.17	25.99	119.35
Wards 1.....	1,188	29,676	24.9	32,439	13.05	24.90	104.58
2.....	357	28,812	80.7	30,676	17.11	33.37	120.81
3.....	332	15,339	46.2	15,667	15.29	26.84	106.02
4.....	301	13,294	44.1	13,808	18.02	25.50	148.26
5.....	207	12,811	61.9	12,914	16.69	24.28	118.59
6.....	293	35,758	122.0	39,492	16.18	48.81	100.33
7.....	394	14,913	37.9	14,483	20.05	26.57	94.39
8.....	171	32,430	189.6	33,479	12.07	33.21	70.64
9.....	186	26,427	141.5	29,214	15.13	27.40	106.24
10.....	394	25,320	64.3	26,277	11.86	10.51	114.81
11.....	663	27,444	41.4	30,738	9.69	14.22	63.73
12.....	235	24,294	103.4	25,948	14.98	14.57	181.82
13.....	611	21,561	35.3	21,501	17.24	31.11	117.91
14.....	405	23,584	58.2	24,527	14.44	24.14	115.92
15.....	277	21,216	76.6	21,803	14.80	20.25	119.82
16.....	564	25,633	45.6	28,033	12.75	24.23	110.42
17.....	460	26,426	57.4	27,793	15.49	25.65	117.22
18.....	220	22,735	103.3	23,133	17.08	25.08	99.30
19.....	760	31,714	41.7	33,332	13.77	22.77	111.41
20.....	1,716	55,720	32.5	64,723	12.97	20.33	158.90
21.....	640	30,511	20.5	33,085	13.54	17.53	85.14
22.....	760	29,975	38.1	31,403	12.50	20.55	100.48
23.....	7,617	30,668	4.0	33,423	12.13	19.93	94.94
24.....	3,252	37,749	11.6	41,695	12.63	23.73	103.11
25.....	2,740	26,575	9.7	29,661	11.95	24.73	96.21
26.....	2,869	15,507	5.4	16,152	12.29	29.59	107.30

* Hyde Park was annexed to Boston January 1, 1912, and became Ward 26. Under "Boston," in the above table, Hyde Park statistics are included.

† Population estimated by arithmetical method, using the censuses of 1905 and 1910.

‡ An infant asylum is located in this ward.

VITAL STATISTICS.
July. General Summary.

	1913.	1912.
Total deaths	873	894
Population, estimated*	735,399	720,031
Death rate per 1,000	13.98	14.62
Deaths of nonresidents	131	125
Corrected death rate†	11.88	12.57

* Population estimated by arithmetical method, using the censuses of 1905 and 1910.

† Nonresidents not included.

July, 1913. Statement of Deaths.

Total number (stillbirths ex- cluded)		873	NATIVITY.	
			United States	535
			Ireland	144
			England and Wales	21
			Scotland	12
			Germany	8
			Canada	53
			Italy	38
			Russia and Poland	26
			Sweden and Norway	7
			France	2
			Other countries	16
			Unknown	11
			NATIVITY OF MOTHERS.	
			United States	227
			Ireland	276
			England and Wales	23
			Scotland	16
			Germany	19
			Canada	72
			Italy	75
			Russia and Poland	66
			Sweden and Norway	11
			France	2
			Other countries	24
			Unknown	62
			COLOR.	
			White	846
			Black (negro or mixed)	26
			Chinese	1
Deaths of children:				
Under one year		163		
Under two years		200		
Under five years		229		
Stillbirths during the month,		61		

VITAL STATISTICS.

July, 1913.

Mortality by

Abridged List Class Number.	CAUSES OF DEATH.	TOTALS.		Under 1 Year.	1 Year.	2 Years.	3 Years.	4 Years.	Under 5 Years.	5 to 9 Years.	10 to 14 Years.	15 to 19 Years.
		1913.	1912.									
	Total, all causes.....	873	894	163	37	11	8	10	229	23	12	21
		1913	1912	202	39	16	11	3	271	17	13	24
1	Typhoid fever.....	3	3									
3	Malarial fever.....											
4	Smallpox.....											
5	Measles.....	8	5	3	4			1	8			
6	Scarlet fever.....	1				1			1			
7	Whooping cough.....	7	7	5		2			7			
8	Diphtheria and croup.....	13	5	2	3	1	2	2	10	3		
9	Influenza.....											
12	Other epidemic diseases.....	6	4	2					2			
13	Tuberculosis of the lungs.....	81	93	1	4		1		6			8
14	Tuberculous meningitis.....	9	10	3	1	2	1		7	1		
15	Other forms of tuberculosis.....	7	3		3		1		4			
16	Cancer, malignant tumor.....	53	60				1		1			
17	Simple meningitis (except cerebro-spinal meningitis).....	5	5		1	1			2		1	
17a	Cerebro-spinal meningitis.....	5	6	2					2	1		
18	Apoplexy and softening of the brain.....	42	36									
19	Organic heart diseases.....	109	99							3		3
20	Acute bronchitis.....		1									
21	Chronic bronchitis.....	4	3									
22	Pneumonia (except broncho-pneumonia).....	36	41	4	2			2	8	1	1	
22a	Broncho-pneumonia.....	26	22	8	5	1			14	1		
23	Other respiratory diseases.....	6	9		1		1		2			
24	Diseases of the stomach (cancer excepted).....	7	4	1	1				2			
25	Diarrhea and enteritis (under two years).....	61	85	53	8				61			
26	Appendicitis and typhlitis.....	9	11							1	1	
27	Hernia, intestinal obstruction.....	11	3	3					3			
28	Cirrhosis of liver.....	6	3									
29	Bright's disease and nephritis.....	56	52					1	1		1	3
30	Diseases of women (not cancer).....	4	8									
31	Puerperal septicemia.....	4	5									
32	Other puerperal diseases.....	6	6									1
33	Congenital debility and malformations.....	54	66	53	1				54			
34	Old age.....	1	4									
35	Violent deaths.....	95	76	6	2	2	1	3	14	6	4	2
36	Suicide.....	13	9									1
37	Other diseases.....	124	150	17	1	1		1	20	6	4	2
38	Ill-defined causes.....	1										

20 to 24 Years.	25 to 29 Years.	30 to 34 Years.	35 to 39 Years.	40 to 44 Years.	45 to 49 Years.	50 to 54 Years.	55 to 59 Years.	60 to 64 Years.	65 to 69 Years.	70 to 74 Years.	75 to 79 Years.	80 to 84 Years.	85 to 89 Years.	90 Years and over.	SEX.		Abridged List Class Number.
															Males.	Females.	
38 33	33 29	33 47	46 43	56 46	53 51	62 56	54 48	51 52	64 43	37 53	32 31	18 17	6 18	5 2	488 474	385 420	1
1		1													3		3
																	4
															6	2	5
																1	6
															5	2	7
															7	6	8
																	9
		1		1	1							1			3	3	12
10	4	8	6	6	7	10	9	3	2		2				49	32	13
					1										6	3	14
1	2														3	4	15
1			3	3	7	9	5	6	11	3	1	3			21	32	16
					1					1					2	3	17
			1	1											4	1	17a
	1			2	3	4	8	4	7	3	4	5		1	21	21	18
4	5	2	6	6	9	11	11	11	12	9	9	4	3	1	60	49	19
																	20
									3					1	3	1	21
	2	2	1	3	2	1	3	3	2	4	2	1			16	20	22
				3	1	2	1	3		1					18	8	22a
						1	1		1		1				2	4	23
				1			2			2					5	2	24
															33	28	25
		1		3		1		1	1						5	4	26
				1	3	1	1		1	1					6	5	27
			1	1				1	3						3	3	28
2	2	1	4	2	2	4	3	9	9	5	5	1	1	1	26	30	29
			2	1									1			4	30
1	2	1														4	31
1	1	3														6	32
															31	23	33
														1		1	34
10	6	8	10	9	7	4	4	4	1	1	2	2	1		69	26	35
1		2	4	2	2	1									10	3	36
6	8	3	8	11	7	13	6	5	11	7	6	1			70	54	37
								1							1		38

VITAL STATISTICS.

July, 1913.

Mortality by

Abridged List Class Number.	CAUSES OF DEATH.	Boston.	WARD RESIDENCE.										
			1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
	All causes.....	873	26	31	12	18	20	51	23	33	20	19	13
	Rates per 1,000 popula- (1913 13.98 9.44 11.90 9.02 15.35 18.23 15.21 18.70 11.61 8.06 8.51 4.98 tion..... (1912 14.62 10.44 19.56 15.89 18.12 15.54 16.59 20.14 10.30 9.97 7.70 8.32												
1	Typhoid fever.....	3								1			
3	Malarial fever.....												
4	Smallpox.....												
5	Measles.....	8	1	1		1			1				
6	Scarlet fever.....	1	1										
7	Whooping cough.....	7								1			
8	Diphtheria and croup.....	13		2	1		1	3					
9	Influenza.....												
12	Other epidemic diseases.....	6									1		
13	Tuberculosis of the lungs.....	81	3	2		4	2	8		4	5	4	2
14	Tuberculous meningitis.....	9			1		1			1			
15	Other forms of tuberculosis.....	7						1					
16	Cancer, malignant tumor.....	53	1	4						1	1	2	1
17	Simple meningitis (except	5											
17a	cerebro-spinal meningitis).	5								1	1		
18	Cerebro-spinal meningitis.....	5											
18	Apoplexy and softening of the	42					2	3		1		1	
19	brain.												
19	Organic heart diseases.....	109	5	1	4	4	3	3	3	4	1	4	2
20	Acute bronchitis.....												
21	Chronic bronchitis.....	4											
22	Pneumonia (except broncho-	36	1	2		4			2	1		1	
22a	pneumonia).	26	1	2				5		2	1		
23	Broncho-pneumonia.....	26	1	2									
23	Other respiratory diseases.....	6											
24	Diseases of the stomach (cancer	7											
25	excepted).												
25	Diarrhea and enteritis (under	61	2	2		1		7	2	2	1	1	2
26	two years).												
26	Appendicitis and typhlitis.....	9					1			1	1		
27	Hernia, intestinal obstruction,	11	1	1					2				
28	Cirrhosis of liver.....	6						1					1
29	Bright's disease and nephritis..	56	2	4	2			4	1		1	2	
30	Diseases of women (not cancer),	4	1									1	
31	Puerperal septicemia.....	4					1	1					1
32	Other puerperal diseases.....	6		1				2	1				
33	Congenital debility and mal-	54	1	1	1	1	1	8		4	1		1
34	formations.												
34	Old age.....	1										1	
35	Violent deaths.....	95	1	3	2	2	5	4	4	5	2	1	
36	Suicide.....	13	1	1					2	2			1
37	Other diseases.....	124	4	4	1	1	3	1	5	2	4	1	2
38	Ill defined causes.....	1											
	Total deaths under one year..	163	4	7	1	3	2	15	3	9	4	1	3

Of deaths of nonresidents from typhoid fever, measles, scarlet fever and diphtheria

VITAL STATISTICS.

Cause and Residence.

July, 1913.

WARD RESIDENCE.															Boston, Ward Unknown.	Nonresidents.	Unknown.	Abridged List Class Number
12.	13.	14.	15.	16.	17.	18.	19.	20.	21.	22.	23.	24.	25.	26.				
25	31	18	23	33	35	29	33	60	26	29	38	38	31	18	1	131	8	...
11.34	16.98	8.64	12.42	13.86	14.83	14.76	11.66	10.92	9.25	10.87	13.39	10.73	12.31	13.12	...	...	...	...
12.96	16.41	11.18	16.88	9.93	14.20	17.40	12.19	9.89	11.67	10.65	10.12	9.02	11.49	10.33	...	...	...	...
...	...	...	...	...	...	...	...	1	...	...	...	1	...	...	...	...	...	...
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	4
...	...	...	...	...	...	...	...	2	...	...	...	...	...	...	...	2	...	5
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	6
2	1	...	...	...	...	1	...	1	...	...	...	...	...	...	...	1	...	7
...	...	...	...	...	...	1	...	1	...	1	1	...	...	...	...	2	...	8
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	9
1	...	...	...	...	1	...	...	...	...	1	...	...	...	...	...	2	...	12
...	3	...	2	3	4	3	4	5	...	1	2	7	1	3	...	8	1	13
...	...	1	...	1	...	...	...	...	...	...	...	...	1	...	...	3	...	14
...	...	...	...	1	...	1	...	1	...	...	...	1	...	...	...	2	...	15
1	1	1	3	2	1	2	2	4	2	2	1	5	3	2	...	11	...	16
...	...	...	...	...	1	...	1	...	1	...	1	...	...	...	...	1	...	17
...	...	...	...	...	...	1	1	...	...	...	...	...	...	...	...	1	...	17a
3	...	2	...	3	1	1	...	3	2	2	5	5	2	3	...	3	...	18
4	4	2	1	2	5	3	7	7	5	5	5	6	5	4	...	10	...	19
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	20
1	1	1	...	...	...	...	...	...	...	...	...	...	...	1	...	...	...	21
...	1	1	1	3	...	1	2	3	2	5	...	...	2	...	...	4	...	22
...	...	1	...	1	1	2	...	5	...	...	...	...	...	2	...	2	1	22a
...	1	1	1	...	...	...	...	1	...	...	...	...	...	...	...	2	...	23
1	...	...	...	...	...	1	1	1	...	1	...	...	...	...	...	2	...	24
1	7	1	3	1	2	...	2	1	...	...	1	3	3	...	1	13	2	25
...	...	...	1	...	2	1	...	...	...	...	...	...	...	...	...	2	...	26
...	...	...	...	1	...	1	1	...	...	...	1	...	1	...	...	2	...	27
...	...	1	...	...	1	...	...	...	...	...	1	...	1	...	...	...	...	28
3	3	2	2	3	1	1	2	3	...	3	7	...	2	1	...	6	1	29
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	2	...	30
...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	...	31
...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	1	...	32
3	1	2	1	1	2	3	3	2	1	1	4	...	1	1	...	9	...	33
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	34
1	6	...	1	3	8	2	3	5	5	4	3	2	4	...	...	17	2	35
...	1	...	...	...	...	1	...	...	...	...	...	...	...	...	...	3	1	36
4	1	2	7	8	5	3	4	14	7	2	6	8	5	1	...	19	...	37
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1	...	38
6	9	5	6	6	4	6	7	9	4	1	5	3	7	4	1	...	3	...

there were 2 deaths from diphtheria among cases brought to Boston for treatment.

VITAL STATISTICS.

July, 1913, Infant Mortality.

Detailed List Class Number.	CAUSES OF DEATH.	JULY TOTALS, UNDER 1 YEAR.		Under 1 Day.	1 to 2 Days.	2 to 3 Days.	3 Days to 1 Week.	1 to 2 Weeks.	2 to 3 Weeks.	3 Weeks to 1 Month.	1 to 2 Months.	2 to 3 Months.	3 to 6 Months.	6 to 9 Months.	9 to 12 Months.	AGED 2 WEEKS AND OVER.		Nonresidents.
		1912.	1911.													Breast Fed.	Bottle Fed.	
	Total.....	163	202	23	4	7	8	7	6	6	14	11	28	29	20	32	82	25
	Male.....	97	116	14	3	4	4	3	4	3	9	6	17	17	13	20	49	
	Female.....	66	86	9	1	3	4	4	2	3	5	5	11	12	7	12	33	
	White.....	159	197	9	1	6	8	7	6	6	14	11	27	27	20	31	80	
	Colored.....	4	5			1							1	2		1	2	
1	Typhoid fever.....																	
5	Smallpox.....																	
6	Measles.....	3	1										1		2		3	
7	Scarlet fever.....																	
8	Whooping cough.....	5	4									1	2		2	2	3	1
9	Diphtheria and croup.....	2													2		2	
10	Influenza.....																	
14	Dysentery.....																	
18	Erysipelas.....	2						1		1							1	1
19	Other epidemic diseases.....																	
20	Pus-infection and septicemia.....		1															
24	Tetanus.....																	
28	Tuberculosis of the lungs.....	1											1				1	
29	Acute miliary tuberculosis.....		2															
30	Tuberculous meningitis.....	3	1								1			2		1	2	2
31 35	Other forms of tuberculosis.....																	
36	Rickets.....		3															
37	Syphilis.....																	
38	Gonococcus infection.....																	
61	Simple meningitis.....																	
61a	Cerebro-spinal fever.....	2										1		1		1	1	
63a	Acute poliomyelitis.....		1															
71	Convulsions.....		2															
76	Diseases of the ears.....	1												1			1	
79	Organic diseases of the heart.....																	
89	Acute bronchitis.....																	
91	Broncho-pneumonia.....	8	9										2	2	4	4	4	
92	Pneumonia.....	4	5				1							3		1	2	
93	Pleurisy.....		1															
103	Other diseases of stomach.....	1											1				1	
104	Diarrhea and enteritis.....	53	73					2	1		5	5	15	18	7	16	35	11
108	Appendicitis and typhlitis ..																	

VITAL STATISTICS.

July, 1913, Infant Mortality.—*Concluded.*

Detailed List Class Number.	CAUSES OF DEATH.	JULY TOTALS, UNDER 1 YEAR.												AGED 2 WEEKS AND OVER.		Nonresidents.		
		1913.	1912.											Breast Fed.	Bottle Fed.			
				Under 1 Day.	1 to 2 Days.	2 to 3 Days.	3 Days to 1 Week.	1 to 2 Weeks.	2 to 3 Weeks.	3 Weeks to 1 Month.	1 to 2 Months.	2 to 3 Months.	3 to 6 Months.				6 to 9 Months.	9 to 12 Months.
109	Hernias,intestinal obstruction,	3	1	...	...	...	...	...	...	...	...	...	2	1	...	1	2	1
117	Simple peritonitis.....			...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
119	Acute nephritis.....		1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
143	Furuncle.....			...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
144	Acute abscess.....			...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
145	Other diseases of skin, etc....	1	2	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...
150a	Hydrocephalus.....	2	...	...	...	...	...	...	...	1	...	...	...	1	...	...	2	1
b	Congenital malformations of heart.	12	5	2	1	1	2	2	2	...	1	1	...	...	...	2	2	3
c	Other malformations.....	2	3	...	...	1	...	...	...	...	...	...	1	...	...	...	1	1
151a	Premature birth.....	27	45	13	1	2	2	1	2	3	2	1	...	...	...	1	7	1
b	Congenital debility.....	10	12	...	...	...	3	...	...	1	3	...	2	...	1	2	5	2
152a	Injuries at birth.....	8	12	6	1	1	...	...	...	...	...	...	...	...	...	...	...	...
b	Other causes peculiar to early infancy.	5	12	2	...	2	...	...	...	1	...	...	...	...	...	...	1	...
167	Burns (conflagrations excepted).	1	1	...	...	...	...	...	...	...	...	...	...	1	...	...	1	...
168	Absorption of deleterious gases,	4	1	...	...	...	...	1	...	...	1	2	...	...	...	1	3	...
172	Traumatism by fall.....			...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
182	Homicide.....			...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
184	...			...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
187	Ill-defined diseases.....			...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
189	Other causes.....	3	4	...	1	...	...	...	...	1	...	...	1	...	...	...	2	1
	Breast fed *.....	32	35	...	...	...	...	4	...	4	2	6	10	6	32	...	...	2
	Bottle fed *.....	82	88	...	...	...	...	2	6	10	9	22	19	14	...	82	20	...
	Nonresidents.....	25	36	...	1	1	...	1	1	2	5	1	9	3	1	2	20	25

* Aged two weeks and over.

Additional Deaths for Other Months.

April, 1913.—1 male; white; organic diseases of the heart; aged 62 years; widower; nonresident; born in United States; mother born in United States.

1 male; white; homicide by other means; aged 36 years; married; nonresident; born in Italy; birthplace of mother unknown.

May, 1913.—1 female; white; alcoholism; aged 51 years; condition unknown; residence Ward 8; birthplace unknown; birthplace of mother unknown.

June, 1913.—1 male; white; alcoholism; aged 33 years; condition unknown; residence Ward 7; birthplace unknown; birthplace of mother unknown.

1 male; white; organic diseases of the heart; aged 45 years; single; residence Ward 11; born in United States; birthplace of mother unknown.

1 male; white; diseases of the arteries, etc.; aged 80 years; married; residence Ward 18; born in England or Wales; mother born in England or Wales.

1 female; white; Bright's disease; aged 68 years; widow; residence Ward 17; born in Ireland; mother born in Ireland.

1 male; white; suicide by cutting or piercing instruments; aged 38 years; single; residence unknown; birthplace other foreign; birthplace of mother other foreign.

1 female; white; traumatism by fall; aged 27 years; married; residence Ward 17; born in United States; mother born in Ireland.

1 male; white; fracture (cause not specified); aged 28 years; condition unknown; Boston resident; birthplace unknown; birthplace of mother unknown.

1 male; white; cause not specified; aged 36 years; married; nonresident; born in Russia or Poland; mother born in Russia or Poland.

**DIVISION OF COMMUNICABLE DISEASES,
JULY, 1913.**

Medical Inspectors.

New cases visited:

Diphtheria:

a. Isolation	63
b. Diagnosis	3

Scarlet fever:

a. Isolation	22
b. Diagnosis	12
c. Release	33

Typhoid fever	25
-------------------------	----

Measles:

a. Isolation	11
b. Diagnosis	7

Varicella:

a. Isolation	4
b. Diagnosis	1

Ophthalmia neonatorum	5
---------------------------------	---

Tuberculosis	22
------------------------	----

Whooping cough	15
--------------------------	----

Deaths investigated	10
-------------------------------	----

Nurses.

New cases visited:

Diphtheria	126
Scarlet fever	58
Typhoid fever	21
Whooping cough	67
Ophthalmia neonatorum	90
Measles	131
Varicella	48

Old cases visited:

Diphtheria	108
Scarlet fever	150
Typhoid fever	40
Whooping cough	67
Ophthalmia neonatorum	240
Measles	242

Varicella	67
Release cultures taken for diphtheria	96
Vaccinations performed	13
Certificates granted	0

Forcible Removals.

Tuberculosis	1
Diphtheria	7
Scarlet fever	3
Typhoid fever	2

Disinfections.

Diphtheria	127
Scarlet fever	76
Phthisis	198

DIVISION OF

July, 1913. Cases Reported.

WARDS.	Anterior Poliomyelitis.	Actinomycosis.	Asiatic Cholera.	Bubonic Plague.	Cerebro-spinal Meningitis.	Diphtheria.	Glanders.	Leprosy.	Malaria.	Malignant Pustule.	Measles.	Mumps.	Ophthalmia Neonatorum.
1.....						3	.....	.....	.....	.....	18	3	3
2.....						12	.....	.....	1	.....	2	.....	9
3.....						4	.....	.....	.....	.....	12	2	1
4.....						2	.....	.....	.....	.....	16	4	1
5.....						6	.....	.....	1	.....	8	2	3
6.....						34	.....	.....	.....	.....	25	3	19
7.....						1	.....	.....	.....	.....	.....	5	2
8.....					1	3	.....	.....	.....	.....	8	8	15
9.....					1	6	.....	.....	1	.....	.....	2	8
10.....						1	.....	.....	.....	.....	.....	3	.....
11.....						1	.....	.....	.....	.....	.....	7	3
12.....						2	.....	.....	.....	.....	1	3	12
13.....						4	.....	.....	1	.....	3	1	.....
14.....						3	.....	.....	.....	.....	4	2	5
15.....						4	.....	.....	.....	.....	4	1	2
16.....					1	3	.....	.....	.....	.....	3	3	2
17.....						7	.....	.....	.....	.....	3	2	2
18.....					1	5	.....	.....	.....	.....	3	.....	5
19.....					1	7	.....	.....	.....	.....	13	1	4
20.....						7	.....	.....	.....	.....	22	5	6
21.....						2	.....	.....	.....	.....	14	2	.....
22.....						10	.....	.....	1	.....	4	1	6
23.....						4	.....	.....	.....	.....	6	.....	.....
24.....						5	.....	.....	.....	.....	22	6	1
25.....						3	.....	.....	.....	.....	1	3	1
26.....						3	.....	.....	.....	.....	14	.....	.....
Total.....					5	142	.....	.....	5	.....	206	69	110
Unknown.....							.....	.....	.....	.....	.....	.....	1
Nonresidents.....					1	12	.....	.....	.....	1	12	.....	.....
Grand total.....					6	154	.....	.....	5	1	218	69	111
Corresponding month last year..	2	.....	.....	.....	7	77	.....	.....	10	.....	302	13	87

Included in the nonresidents were the following cases brought to Boston

COMMUNICABLE DISEASES.

Cases Reported.

July, 1913.

Scarlet Fever.	Smallpox.	Tetanus.	Trachoma.	Trichinosis.	Tuberculosis (Pulmonary and Miliary).	Tuberculosis (Other Forms).	Typhoid Fever.	Typhus Fever.	Varicella.	Whooping Cough.	Yellow Fever.	WARDS.
5	9	.....	2	.....	1	4	.....	1
8	2	.....	14	.....	.....	.....	6	8	.....	2
1	1	.....	6	1	.....	.....	2	.....	.....	3
.....	7	.....	1	.....	.....	.....	.....	4
1	4	1	2	.....	.....	.....	.....	5
2	1	.....	23	3	7	.....	8	10	.....	6
.....	22	.....	.....	.....	1	2	.....	7
9	2	.....	13	2	3	.....	7	17	.....	8
.....	2	.....	17	2	.....	.....	4	2	.....	9
.....	5	1	1	.....	.....	.....	.....	10
.....	6	1	.....	.....	2	.....	.....	11
1	11	.....	2	.....	.....	2	.....	12
.....	1	.....	13	1	.....	.....	.....	6	.....	13
4	10	1	.....	.....	1	5	.....	14
.....	6	1	.....	.....	.....	1	.....	15
2	3	1	.....	.....	1	.....	.....	16
5	10	.....	.....	.....	.....	8	.....	17
1	13	1	1	.....	1	2	.....	18
2	9	.....	1	.....	2	7	.....	19
3	12	.....	3	.....	2	8	.....	20
5	2	.....	1	.....	3	.....	.....	21
1	7	1	.....	.....	3	2	.....	22
3	4	.....	.....	.....	1	4	.....	23
2	16	1	2	.....	.....	8	.....	24
2	2	2	.....	.....	.....	2	.....	25
4	4	.....	.....	.....	1	.....	.....	26
61	9	.....	248	20	26	.....	46	98	.....	Total
.....	1	.....	Unknown
3	1	5	.....	14	11	2	.....	.....	.....	.....	Nonresidents
64	1	14	.....	262	31	28	.....	46	99	.....	Grand total
33	3	.....	276	35	34	.....	45	77	.....	Corresponding month last year.

for treatment: Diphtheria, 12; scarlet fever, 3; measles, 12; typhoid fever, 2.

DIVISION OF CHILD HYGIENE.—JULY, 1913.

Pre-Natal and Post-Natal Work.

1. Pre-Natal.

Number cases	8	Babies born	4
Number visits	26	Breast-fed	4

Mothers attended as follows:

Family physician	4
----------------------------	---

Defective conditions noted :

Varicose veins	1
--------------------------	---

2. Post-Natal.

Number cases	1,603	Number visits	5,959
------------------------	-------	-------------------------	-------

Visits were made to 306 homes, where babies were not seen, on account of wrong addresses, removal, etc.

Breast-fed	1,141	Breast and bottle fed	139
Bottle-fed	323		

Defective conditions noted as follows:

Umbilical hernia	11	Skin disease	15
Improper feeding	216	Miscellaneous	1
Ophthalmia	34		

The following letter was sent to the mothers of about one thousand babies in Wards 11, 16, 20, 23, 24, 25 and 26, who had not been visited owing to the demands of other divisions for the services of some of the nurses of this division and the resignation and illness of two. Seven hundred sixty-three replies have been received in response to this letter, stating that 533 babies were breast-fed and 230 babies were bottle-fed. An additional corps of nine nurses, appointed for the summer months, was immediately sent to visit and advise the mothers of these bottle-fed babies.

HEALTH DEPARTMENT, BOSTON, July 9, 1913.

DEAR MADAM:

To assist the Health Department in its campaign to save the babies of Boston, will you please answer the following questions regarding your baby born on....., 1913, and return this slip at once in the inclosed envelope.

Is your baby breast-fed? (Answer yes or no.).....

Is your baby bottle-fed? (Answer yes or no.).....

If bottle fed, what food is being used?.....

Yours truly,

DIVISION OF CHILD HYGIENE,

W. J. GALLIVAN, M. D., *Chief.*

Examination of Licensed Minors.

There were 385 girls and 369 boys between the ages of 14 and 16 years examined during this month. Two hundred and sixty-four were found to be without defects and 490 with defects, as follows:

Eyesight	25	Pulmonary disease, (non-	
Mental deficiency	1	tuberculous)	1
Defective nasal breathing	8	Orthopedic defects	3
Hypertrophied tonsils	15	Cardiac disease	5
Defective teeth	434	Miscellaneous	3

Certificates were refused at this time to four applicants.

BACTERIOLOGICAL LABORATORY.

DIPHTHERIA:			GONORRHEA:		
Positive for diagnosis...	108		Positive.....	47	
Positive for release.....	72		Negative.....	171	
Negative for diagnosis...	516		Unsatisfactory.....	0—	218
Negative for release.....	182		GONORRHEAL OPHTHALMIA:		
"No growth" cultures...	14—	892	Positive.....	1	
TUBERCULOSIS:			Negative.....	48	
Positive.....	77		Unsatisfactory.....	0—	49
Negative.....	357		OTHER EXAMINATIONS:		
Unsatisfactory.....	0—	434	*Positive.....	9	
TYPHOID:			Negative.....	61	
Positive.....	13		Unsatisfactory.....	0—	70
Negative.....	166		BACTERIOLOGICAL MILK		
Atypical.....	14—	193	EXAMINATIONS.....	769—	769
GLANDERS: Strauss. C. F. Ag.			Bacteriological ice cream		
Positive.....	0		examinations.....	21—	21
Negative.....	0		Total.....		
Unsatisfactory.....	0				2,646
Atypical.....	—	0	SPECIAL WORK:		
			Two samples of water for bacteriological		
			content and pollution.		

* K-L Vir. organisms, malaria, G-U. T. B., paratyphoids, leprosy, rabies.

INSPECTION OF MILK, VINEGAR, ETC.

Examination as to Statute Requirements.

Samples examined, milk from stores.....	505
" " milk from wagons.....	674
" " milk brought in by citizens.....	21
" " milk for bacteriological examination.....	769
" " bacteriological ice cream.....	21
" " vinegar.....	67
" " butter and cheese.....	3
" " ink.....	1
Total samples.....	2,061

INSPECTED AT BRIGHTON ABATTOIR.

Cattle inspected.....	306	Cattle condemned (6 whole)....	1,585 lbs.
Calves inspected.....	574	Cattle condemned (parts 61)....	1,848 lbs.
Sheep inspected.....	2	Calves condemned (1 whole)....	28 lbs.
Swine inspected.....	2,656	Sheep condemned.....	— lbs.
		Swine condemned (3 whole)....	450 lbs.
		Swine condemned (parts of 154),	1,647 lbs.

INSPECTION OF PROVISIONS.—ARTICLES CONDEMNED.

Meats.		Miscellaneous.	
Veal (tainted).....	230 lbs.	Fish (tainted).....	75 lbs.
Veal unstamped out of state...	90 lbs.	Eggs (decayed).....	1,767 doz.
Mutton (tainted).....	7 lbs.	Canned goods.....	56 cans
Beef (tainted).....	245 lbs.	Vegetables (decayed).....	16 bushels
Pork (tainted).....	18 lbs.		
Poultry (tainted).....	157 lbs.		

SANITARY DIVISION.

New reports.....	2,889
Reinspections.....	9,353
New tenement house reports.....	483
Nuisances reported.....	6,324
Legal notices.....	445
Court cases.....	5
Fines.....	\$30.00
Tenements vacated.....	4
Milk applications approved.....	138
Stable permits granted.....	3
Stable permits withheld.....	2
Stable permits refused.....	0
Stable hearings.....	5
Stables vacated.....	2
Dump permits granted.....	0
Dump permits refused.....	0
Dump permits revoked.....	0

QUARANTINE.

Vessels inspected at quarantine.....	77
Total immigrants arriving in Boston.....	10,417

MONTHLY METEOROLOGICAL SUMMARY

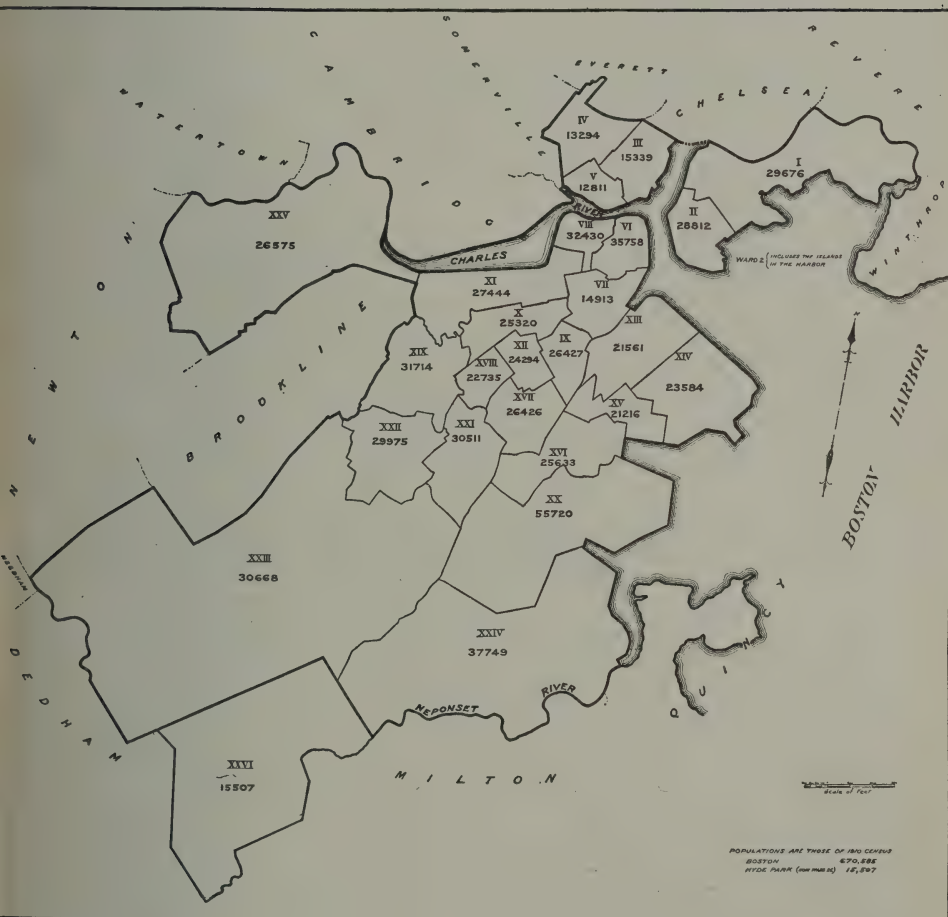
Taken at Weather Bureau, Boston, July, 1913.

DAY.	TEMPERATURE, DEGREES FAHRENHEIT.			Relative Humidity.	Daily Precipitation.	Actual Hours Sun- shine.	WIND.		
	Maximum.	Minimum.	Mean.				Average Hourly Velocity. (Miles.)	Maximum Velocity. (Miles.)	Prevailing Direction.
1.....	96	71	84	64	0	11.8	14.1	21	S. W.
2.....	91	72	82	52	0	12.7	9.9	17	W.
3.....	79	68	74	58	0	13.8	8.6	15	S. E.
4.....	93	66	80	52	0	14.0	12.2	20	S. W.
5.....	95	73	84	66	0	10.2	10.8	17	S. W.
6.....	92	71	82	66	T	5.9	10.5	24	S. W.
7.....	72	60	66	52	T	10.3	13.1	26	W.
8.....	82	61	72	48	.02	12.7	7.0	22	W.
9.....	84	61	72	58	.05	11.1	12.6	26	S. W.
10.....	80	64	72	72	.62	6.3	13.7	27	W.
11.....	80	60	70	58	0	15.0	11.4	19	W.
12.....	84	60	72	56	T	13.5	10.7	23	S. W.
13.....	89	68	78	52	0	13.8	16.7	31	S. W.
14.....	79	66	72	54	.04	12.2	13.8	26	W.
15.....	80	62	71	52	0	14.9	9.0	16	N. W.
16.....	70	60	65	68	0	10.9	7.2	14	E.
17.....	80	60	70	74	0	12.7	7.5	17	S.
18.....	70	61	66	86	.25	0	8.5	17	S. W.
19.....	87	61	74	66	0	13.2	7.0	16	W.
20.....	87	66	76	66	T	7.4	6.1	20	N. W.
21.....	77	64	70	75	T	0	6.6	19	W.
22.....	86	63	74	68	0	13.2	9.4	17	S. W.
23.....	86	66	76	64	0	12.2	13.3	25	S. W.
24.....	83	68	76	82	.19	5.0	10.2	19	S. W.
25.....	81	65	73	55	.04	14.7	11.4	24	N. W.
26.....	83	60	72	62	0	14.6	10.0	19	S. W.
27.....	87	63	75	62	0	13.6	9.8	21	S. W.
28.....	84	64	74	90	.57	7.3	7.8	16	S. W.
29.....	78	65	72	92	0	8.3	7.1	13	E.
30.....	84	72	78	78	.91	10.8	7.4	39	W.
31.....	74	63	68	72	0	12.5	10.3	17	E.
Totals.....	—	—	—	—	2.69	334.6	—	—	—
Means.....	83.0	64.6	73.9	65.2	0.09	73%	10.1	30th	S. W.

Latitude 42 degrees 21 minutes.

Longitude 71 degrees 4 minutes.

BOSTON WARD MAP.



MONTHLY BULLETIN

OF THE

HEALTH DEPARTMENT

OF THE

CITY OF BOSTON



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CITY OF BOSTON
PRINTING DEPARTMENT
1913

ORGANIZATION OF THE HEALTH DEPARTMENT

FRANCIS X. MAHONEY, M. D., *Chairman.*

P. H. MULLOWNEY, M. D. V.

F. H. SLACK, M. D., *Secretary.*

MONTHLY BULLETIN

OF THE

HEALTH DEPARTMENT OF THE CITY OF BOSTON.

All communications relating to this publication should be addressed to
BULLETIN OF THE HEALTH DEPARTMENT, 100 Summer St., Boston.

VOL. 2.

BOSTON, AUGUST, 1913.

NO. 8.

SUMMARY OF VITAL STATISTICS FOR THE MONTH OF AUGUST, 1913.

Boston had 882 deaths in August, 1913, compared with 885 for August of last year; and a death rate of 14.12 against 14.47 for August, 1912. Deaths of nonresidents numbered 136 against 128 a year ago. Deducting deaths of nonresidents the corrected death rate for August, 1913, was 11.94 against 12.38 for August, 1912.

Of deaths from reportable diseases the principal decrease was typhoid fever 4; and the principal increases were tuberculosis (all forms), 15; and diphtheria, 4.

Other important differences were as follows:

August, 1913, decreases compared with August, 1912:

Organic heart disease, Bright's disease and nephritis	14
Diarrhea and enteritis (under 2 years)	13
Puerperal diseases	7
Violent deaths	7

August, 1913, increases compared with August, 1912:

Broncho-pneumonia	14
Cancer	12

Ward 11 again had the lowest death rate, 7.28, and Ward 5 the highest, 19.15. There were 4 more deaths under one year than in August, 1912, 17 more under 5 years, and 2 less over 60.

Total deaths under one year numbered 228, which is 63 less than the average number for August for the preceding five years. Of these 228 deaths, 102 were due to diarrhea and

enteritis, 69 to premature birth, congenital debility, malformations and other diseases peculiar to early infancy; 18 to pneumonia and broncho-pneumonia; 15 to reportable diseases and 24 to other causes.

Of deaths under one year Ward 6 had the largest number, 17, and Ward 1 came next with 15. One hundred and seventy-one were over two weeks old and of these 120 were bottle-fed.

VITAL STATISTICS.

GENERAL STATISTICS.

Population, Ward Area, Persons to Acre, and Rates.

	Land Area in Acres.	Population, 1910 Census.	Persons to Acre of Land. (Using Census Population.)	Population, Estimated, July 1, 1913.†	STILLBIRTHS EXCLUDED.		
					Death Rates, 1912. (Population, Estimated.)†	Birth Rates, 1911. (Population, Estimated.)†	Death Rates, 1912, of Children Under One Year, Per 1,000 Births, 1911.
* Boston.....	27,674	686,092	24.8	735,399	16.17	25.99	119.35
Wards 1.....	1,188	29,676	24.9	32,439	13.05	24.90	104.58
2.....	357	28,812	80.7	30,676	17.11	33.37	120.81
3.....	332	15,339	46.2	15,667	15.29	26.84	106.02
4.....	301	13,294	44.1	13,808	18.02	25.50	148.26
5.....	207	12,811	61.9	12,914	16.69	24.28	118.59
6.....	293	35,758	122.0	39,492	16.18	48.81	100.33
7.....	394	14,913	37.9	14,483	20.05	26.57	94.39
8.....	171	32,430	189.6	33,479	12.07	33.21	70.64
9.....	186	26,427	141.5	29,214	15.13	27.40	106.24
10.....	394	25,320	64.3	26,277	11.86	10.51	114.81
11.....	663	27,444	41.4	30,738	9.69	14.22	63.73
12.....	235	24,294	103.4	25,948	14.98	14.57	181.82
13.....	611	21,561	35.3	21,501	17.24	31.11	117.91
14.....	405	23,584	58.2	24,527	14.44	24.14	115.92
15.....	277	21,216	76.6	21,803	14.80	20.25	119.82
16.....	564	25,633	45.6	28,033	12.75	24.23	110.42
17.....	460	26,426	57.4	27,793	15.49	25.65	117.22
18.....	220	22,735	103.3	23,133	17.08	25.08	99.30
19.....	760	31,714	41.7	33,332	13.77	22.77	111.41
20.....	1,716	55,720	32.5	64,723	12.97	20.33	†158.90
21.....	640	30,511	20.5	33,085	13.54	17.53	85.14
22.....	760	29,975	38.1	31,403	12.50	20.55	100.48
23.....	7,617	30,668	4.0	33,423	12.13	19.93	94.94
24.....	3,252	37,749	11.6	41,695	12.63	23.73	103.11
25.....	2,740	26,575	9.7	29,661	11.95	24.73	96.21
26.....	2,869	15,507	5.4	16,152	12.29	29.59	107.30

* Hyde Park was annexed to Boston January 1, 1912, and became Ward 26. Under "Boston," in the above table, Hyde Park statistics are included.

† Population estimated by arithmetical method, using the censuses of 1905 and 1910.

‡ An infant asylum is located in this ward.

VITAL STATISTICS.

August. General Summary.

	1913.	1912.
Total deaths	882	885
Population, estimated*	735,399	720,031
Death rate per 1,000	14.12	14.47
Deaths of nonresidents	136	128
Corrected death rate†	11.94	12.38

* Population estimated by arithmetical method, using the censuses of 1905 and 1910.

† Nonresidents not included.

August, 1913. Statement of Deaths.

Total number (stillbirths ex- cluded)		NATIVITY.	
	882	United States	570
		Ireland	134
		England and Wales	17
		Scotland	8
		Germany	8
		Canada	70
		Italy	22
		Russia and Poland	13
		Sweden and Norway	9
		France	2
		Other countries	18
		Unknown	11
SEX.		NATIVITY OF MOTHERS.	
Males	496	United States	252
Females	386	Ireland	257
		England and Wales	31
		Scotland	16
		Germany	12
		Canada	83
		Italy	64
		Russia and Poland	47
		Sweden and Norway	13
		France	1
		Other countries	34
		Unknown	72
CONDITION.			
Single	473		
Married	253		
Widowed	145		
Divorced	5		
Unknown	6		
COLOR.			
White	848		
Black (negro or mixed)	32		
Chinese	2		
Deaths of children:			
Under one year	228		
Under two years	270		
Under five years	296		
Stillbirths during the month,	62		

VITAL STATISTICS.

August, 1913.

Mortality by

Abridged List Class Number.	CAUSES OF DEATH.	TOTALS.		Under 1 Year.	1 Year.	2 Years.	3 Years.	4 Years.	Under 5 Years.	5 to 9 Years.	10 to 14 Years.	15 to 19 Years.
		1913.	1912.									
	Total, all causes.....	(1913 882	(1912 885	228	42	10	10	6	296	17	13	11
				224	33	13	7	2	279	15	8	21
1	Typhoid fever.....	5	9									1
3	Malarial fever.....											
4	Smallpox.....											
5	Measles.....	3	1	1	2				3			
6	Scarlet fever.....	1			1				1			
7	Whooping cough.....	8	9	6	1	1			8			
8	Diphtheria and croup.....	8	4	2	1				3	4		1
9	Influenza.....	1										
11	Cholera nostras.....		1									
12	Other epidemic diseases.....	4	4	2				1	3			
13	Tuberculosis of the lungs.....	89	74	4	1				5		2	2
14	Tuberculous meningitis.....	9	8	2	3		2		7	1	1	
15	Other forms of tuberculosis.....	4	5		1		1		2			
16	Cancer, malignant tumor.....	77	65									1
17	Simple meningitis (except cerebro-spinal meningitis).....	3	3	1	1				2			
17a	Cerebro-spinal meningitis.....		5									
18	Apoplexy and softening of the brain.....	40	38	2					2			
19	Organic heart diseases.....	96	117							1	2	2
20	Acute bronchitis.....	4	3	2	1				3			
21	Chronic bronchitis.....	3	1									
22	Pneumonia (except broncho-pneumonia).....	31	33	5	2	1	1		9			
22a	Broncho-pneumonia.....	30	16	13	6		1	1	21		1	
23	Other respiratory diseases.....	2	4				1		1			
24	Diseases of the stomach (cancer excepted).....	4	4	1	1				2			
25	Diarrhea and enteritis (under two years).....	116	129	102	14				116			
26	Appendicitis and typhlitis.....	7	9									1
27	Hernia, intestinal obstruction.....	12	9	1	1	1			3		1	
28	Cirrhosis of liver.....	3	7									
29	Bright's disease and nephritis.....	48	41	1					1			
30	Diseases of women (not cancer)...	4	6									
31	Puerperal septicemia.....	2	4									
32	Other puerperal diseases.....	2	7									
33	Congenital debility and malformations.....	55	54	54					54	1		
34	Old age.....	5	2									
35	Violent deaths.....	56	63	3	2	2	1	4	12	5	2	2
36	Suicide.....	9	8									
37	Other diseases.....	140	137	26	4	5	3		38	5	4	1
38	Ill-defined causes.....	1	5									

VITAL STATISTICS.

Cause and Age.

August, 1913.

20 to 24 Years.	25 to 29 Years.	30 to 34 Years.	35 to 39 Years.	40 to 44 Years.	45 to 49 Years.	50 to 54 Years.	55 to 59 Years.	60 to 64 Years.	65 to 69 Years.	70 to 74 Years.	75 to 79 Years.	80 to 84 Years.	85 to 89 Years.	90 Years and over.	Sex.		Abridged List Class Number.
															Males.	Females.	
26 28	25 36	23 36	41 45	45 46	62 53	57 56	43 37	53 37	52 68	36 44	37 42	25 23	15 9	5 2	496 457	386 428	
2			1		1										2	3	1
																	3
																	4
															3		5
																1	6
															6	2	7
															4	4	8
								1								1	9
																	11
				1											2	2	12
10	9	10	12	13	5	8	6	2	1	2	1	1			45	44	13
															3	6	14
				2											3	1	15
		1	4	5	12	9	11	12	13	3	3	1	2		36	41	16 *
									1						2	1	17
																	17a
			2	1		6	5	2	3	8	3	6	2		16	24	18
2	1	4	4	4	8	9	4	14	11	11	8	4	6	1	48	48	19
								1							3	1	20
						1					2				2	1	21
	1	2	1	3	2	2	1	5	3	1	1				19	12	22
				1	1	1			1		2	1	1		15	15	22a
						1									2		23
			1			1									3	1	24
															72	44	25
	1	1		1	2			1							5	2	26
			1	1	2		1	1			1			1	6	6	27
			1		1		1								1	2	28
2	5		3	4	3	4	7	5	5	4	3	1	1		24	24	29
	1		1	1		1										4	30
1	1															2	31
1		1														2	32
															34	21	33
											1	2	1	1	3	2	34
5	4	4	2	1	8	2	4		2		2		1		46	10	35
	1			1	1	2			3			1			7	2	36
3	1		8	6	16	10	3	8	9	7	10	8	1	2	83	57	37
								1							1		38

VITAL STATISTICS.

August, 1913.

Mortality by

Abridged List Class Number.	CAUSES OF DEATH.	Boston.	WARD RESIDENCE.										
			1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
	All causes.....	882	41	38	19	16	21	45	19	24	30	23	19
	Rates per 1,000 popula- tion.....	14.12 14.47	14.88 11.56	14.59 13.69	14.28 15.13	13.64 17.25	19.15 11.88	13.42 14.44	15.45 14.50	8.44 11.72	12.09 14.54	10.31 9.52	7.28 7.93
1	Typhoid fever.....	5						1					
3	Malarial fever.....												
4	Smallpox.....												
5	Measles.....	3		1						1			
6	Scarlet fever.....	1											
7	Whooping cough.....	8			1			3				1	
8	Diphtheria and croup.....	8	1	1	1			2				1	
9	Influenza.....	1	1										
12	Other epidemic diseases.....	4		2									
13	Tuberculosis of the lungs.....	89	3	5		2	2	3	2	1	6		1
14	Tuberculous meningitis.....	9						1			1		
15	Other forms of tuberculosis....	4											
16	Cancer, malignant tumor.....	77	3	1			3	1	3	1	1	2	2
17	Simple meningitis (except cerebro-spinal meningitis).	3											
17a	Cerebro-spinal meningitis.....												
18	Apoplexy and softening of the brain.....	40	4	2		2	1				1	3	
19	Organic heart diseases.....	96	5	7	1		6	6	2	3	4	2	2
20	Acute bronchitis.....	4						1				1	
21	Chronic bronchitis.....	3				1						1	
22	Pneumonia (except broncho- pneumonia).....	31	1			1		1	1			2	2
22a	Broncho-pneumonia.....	30	3	3	1			3	1	2	2	1	2
23	Other respiratory diseases.....	2							1				
24	Diseases of the stomach (cancer excepted).....	4											
25	Diarrhea and enteritis (under two years).....	116	8	5	4	4	2	7	1	4	2		3
26	Appendicitis and typhlitis.....	7											
27	Hernia, intestinal obstruction,	12		3			1					1	
28	Cirrhosis of liver.....	3											
29	Bright's disease and nephritis..	48	1		2	1	1	2		3	4	1	3
30	Diseases of women (not cancer),	4		1								1	
31	Puerperal septicemia.....	2						1	1				
32	Other puerperal diseases.....	2											
33	Congenital debility and mal- formations.....	55	4	2	3		1	3	1	4	3	2	2
34	Old age.....	5	1			1						1	
35	Violent deaths.....	56	1	1				5	2	1	1		
36	Suicide.....	9	2				1	1			1		
37	Other diseases.....	140	3	4	6	4	3	4	4	4	4	3	2
38	Ill defined causes.....	1											
	Total deaths under one year..	228	15	9	7	4	6	17	3	12	7	6	6

VITAL STATISTICS.

Cause and Residence.

August, 1913.

WARD RESIDENCE.																Boston, Ward Unknown.	Nonresidents.	Unknown.	Abridged List Class Number.
12.	13.	14.	15.	16.	17.	18.	19.	20.	21.	22.	23.	24.	25.	26.					
33	27	27	22	27	31	25	36	42	38	24	31	40	21	14	2	136	11	....
14.97	14.79	12.96	11.88	11.34	13.13	12.72	12.72	7.64	13.52	9.00	10.92	11.30	8.34	10.21	....	....	....	....
12.96	15.32	12.15	10.35	6.90	12.05	16.89	13.63	11.03	5.84	14.07	11.93	14.55	10.26	6.64	....	....	....	....
....	1	....	....	1	....	....	....	....	....	....	1	1	....	....	....	....	....	1
....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	3
....	....	....	....	....	....	....	1	....	....	....	....	....	....	....	....	....	....	4
....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	5
....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	6
....	1	....	2	....	....	....	....	....	....	....	....	....	....	....	....	....	....	7
....	1	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	8
....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	9
....	....	....	1	....	....	....	....	....	....	....	....	....	1	....	....	....	....	12
3	3	4	4	7	6	4	1	6	5	3	4	5	1	....	....	7	1	13
....	1	....	....	....	1	1	....	1	....	....	....	....	....	1	....	2	....	14
....	....	....	....	1	....	....	....	....	....	....	1	....	....	....	....	2	....	15
5	1	3	2	3	3	....	3	1	7	3	3	5	3	1	....	16	1	16
....	....	....	....	....	....	....	2	1	....	....	....	....	....	....	....	....	....	17
....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	17a
2	1	1	....	....	1	1	1	4	5	2	1	3	2	1	....	2	....	18
5	....	1	3	2	....	4	10	4	7	2	4	3	1	2	....	9	1	19
....	....	....	....	....	....	1	....	....	....	....	....	....	....	....	....	1	....	20
....	....	....	....	....	....	....	....	....	....	....	....	1	....	....	....	....	....	21
3	....	4	....	....	3	2	1	2	1	....	1	1	1	1	....	3	....	22
1	1	....	....	....	2	1	....	2	....	....	....	1	....	....	....	4	....	22a
....	....	....	....	1	....	....	....	....	....	....	....	....	....	....	....	....	....	23
....	1	....	....	1	....	....	....	....	....	....	....	1	....	....	....	1	....	24
....	10	4	5	....	5	3	4	6	5	4	4	3	5	2	....	11	5	25
1	....	....	....	1	....	....	....	....	....	....	....	1	....	....	....	4	....	26
....	....	1	....	1	....	1	....	....	....	2	....	1	....	....	....	1	....	27
....	....	....	....	....	....	....	....	....	....	1	....	....	1	....	....	1	....	28
2	1	2	1	1	1	3	1	4	1	1	....	2	1	....	....	9	....	29
....	....	....	....	....	....	....	....	1	....	....	....	....	....	....	....	1	....	30
....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	31
....	....	....	....	....	1	....	....	....	....	....	....	....	....	....	....	1	....	32
2	1	1	1	2	....	....	4	2	2	3	2	4	1	....	....	5	....	33
....	....	....	....	....	....	....	....	....	....	....	1	....	....	1	....	....	....	34
3	....	....	....	1	1	1	4	2	....	1	3	2	2	3	1	20	1	35
....	....	1	....	....	....	....	....	....	....	....	....	1	....	1	....	1	....	36
6	4	4	3	5	6	3	4	6	5	2	6	5	2	1	1	35	1	37	
....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	38
5	7	7	5	3	4	5	9	11	7	7	7	12	10	4	....	27	6	....

VITAL STATISTICS.

August, 1913, Infant Mortality.

Detailed List Class Number.	CAUSES OF DEATH.	AUGUST TOTALS, UNDER 1 YEAR.		Under 1 Day.	1 to 2 Days.	2 to 3 Days.	3 Days to 1 Week.	1 to 2 Weeks.	2 to 3 Weeks.	3 Weeks to 1 Month.	1 to 2 Months.	2 to 3 Months.	3 to 6 Months.	6 to 9 Months.	9 to 12 Months.	AGED 2 WEEKS AND OVER.		Nonresidents.
		1913.	1912.													Breast Fed.	Bottle Fed.	
	Total.....	228	224	24	3	5	14	11	7	6	15	12	45	48	38	51	120	27
	Male.....	134	117	15	3	3	5	7	4	2	12	5	31	26	21	25	76	15
	Female.....	94	107	9	...	2	9	4	3	4	3	7	14	22	17	26	44	12
	White.....	218	217	22	2	5	14	11	7	6	15	12	43	44	37	49	115	27
	Colored.....	10	7	2	1	...	...	...	...	...	...	...	2	4	1	2	5	...
1	Typhoid fever.....																	
5	Smallpox.....																	
6	Measles.....	1												1			1	
7	Scarlet fever.....																	
8	Whooping cough.....	6	3									1	1	2	2	3	3	
9	Diphtheria and croup.....	2	1										1	1		1	1	
10	Influenza.....																	
14	Dysentery.....																	
18	Erysipelas.....	2	3							1			1			2		
19	Other epidemic diseases.....																	
20	Pus-infection and septicemia.....		1															
24	Tetanus.....																	
28	Tuberculosis of the lungs.....	3												2	1	1	2	1
29	Acute miliary tuberculosis.....	1	1												1		1	
30	Tuberculous meningitis.....	2	2										1	1			2	
31 35	Other forms of tuberculosis.....		3															
36	Rickets.....		1															
37	Syphilis.....	2	3							1				1		1	1	1
38	Gonococcus infection.....																	
61	Simple meningitis.....	1											1			1		
61a	Cerebro-spinal fever.....																	
63a	Acute poliomyelitis.....																	
71	Convulsions.....																	
76	Diseases of the ears.....																	
79	Organic diseases of the heart,																	
89	Acute bronchitis.....	2	2											1	1	2		
91	Broncho-pneumonia.....	13	10			2		1			1		2	6	1	2	8	1
92	Pneumonia.....	5	7				1	1						2	1	1	2	
93	Pleurisy.....																	
103	Other diseases of stomach.....	1	1										1				1	
104	Diarrhea and enteritis.....	102	115					3	1		8	6	31	28	25	21	78	9
108	Appendicitis and typhlitis ..																	

VITAL STATISTICS.
August, 1913, Infant Mortality.—Concluded.

Detailed List Class Number.	CAUSES OF DEATH.	AUGUST TOTALS, UNDER 1 YEAR.		Under 1 Day.	1 to 2 Days.	2 to 3 Days.	3 Days to 1 Week.	1 to 2 Weeks.	2 to 3 Weeks.	3 Weeks to 1 Month.	1 to 2 Months.	2 to 3 Months.	3 to 6 Months.	6 to 9 Months.	9 to 12 Months.	AGED 2 WEEKS AND OVER.		Nonresidents.
		1913.	1912.													Breast Fed.	Bottle Fed.	
109	Hernias,intestinal obstruction,	1	1											1		1		
117	Simple peritonitis.....																	
119	Acute nephritis.....	1	1												1		1	1
143	Furuncle.....																	
144	Acute abscess.....																	
145	Other diseases of skin, etc....																	
150a	Hydrocephalus.....	1								1							1	
b	Congenital malformations of heart.	5	3	1		1	2				1							1
c	Other malformations.....	7	5				1		1		1	3	1				2	4
151a	Premature birth.....	26	36	14	1	1	3	1	2	1	1	1	1				1	5
b	Congenital debility.....	15	10		1		3	2	1		2	1	3		2		3	6
152a	Injuries at birth.....	8	10	8														
b	Other causes peculiar to early infancy.	7	4	1			3	2	1								1	
167	Burns (conflagrations excepted).																	
168	Absorption of deleterious gases,	2								2								2
172	Traumatism by fall.....																	
182	Homicide.....																	
184																		
187	Ill-defined diseases.....		1															
189																		
	Other causes.....	12			1	1	1	1	1		1		1	2	3	6	2	4
	Breast fed *.....	51	40						3	2		4	10	15	17	51		4
	Bottle fed *.....	120	135						4	4	15	8	35	33	21		120	14
	Nonresidents.....	27	37	3	1	1	2	2	2	1	1	1	5	4	4	4	14	27

* Aged two weeks and over.

Additional Deaths for Other Months.

May, 1913.—1 female; appendicitis and typhlitis; white; aged 60 years; widow; residence Ward 19; born in United States; birthplace of mother unknown.

July, 1913.—1 male; homicide by other means; black; aged 49 years; married; residence Ward 11; born in United States; birthplace of mother unknown.

1 male; homicide by other means; white; aged 26 years; married; residence ward 20; born in United States; mother born in United States.

**DIVISION OF COMMUNICABLE DISEASES,
AUGUST, 1913.**

Medical Inspectors.

New cases visited:

Diphtheria:

a. Isolation	73
b. Diagnosis	3

Scarlet fever:

a. Isolation	25
b. Diagnosis	3
c. Release	18

Measles:

a. Isolation	6
b. Diagnosis	1

Varicella:

a. Isolation	1
b. Diagnosis	0

Ophthalmia neonatorum	9
---------------------------------	---

Tuberculosis	41
------------------------	----

Typhoid fever	58
-------------------------	----

Whooping cough	15
--------------------------	----

Infantile paralysis	8
-------------------------------	---

Poliomyelitis	8
-------------------------	---

Anti-typhoid inoculation	9
------------------------------------	---

Deaths investigated	26
-------------------------------	----

Vaccinations performed	100
----------------------------------	-----

Certificate of vaccination issued	20
---	----

Nurses.

New cases visited:

Diphtheria	118
Scarlet fever	35
Measles	66
Varicella	14
Typhoid fever	58
Whooping cough	44
Ophthalmia neonatorum	93
Poliomyelitis	10
Cerebro-spinal meningitis	1
Diphtheria cultures taken	79

Old cases visited:

Diphtheria	95
Scarlet fever	123
Measles	57
Varicella	14
Typhoid fever	44
Whooping cough	49
Ophthalmia neonatorum	208
Cerebro-spinal meningitis	1
Poliomyelitis	10

Disinfections.

Diphtheria	111
Scarlet fever	34
Tuberculosis	179

Forcible Removals.

Tuberculosis	2
Scarlet fever	0
Diphtheria	2
Typhoid fever	1
Cancer	1

DIVISION OF

August, 1913. Cases Reported.

WARDS.	Anterior Folliculitis.	Actinomycosis.	Asiatic Cholera.	Bubonic Plague.	Cerebro-spinal Meningitis.	Diphtheria.	Glanders.	Leprosy.	Malaria.	Malignant Pustule.	Measles.	Mumps.	Ophthalmia Neonatorum.
1.....				1	8						5		2
2.....					11						9		6
3.....					4						4	1	2
4.....					3						4		3
5.....					4								1
6.....					26						9	4	13
7.....	1											1	2
8.....	2				6						2	12	17
9.....	3			1				1			2	1	5
10.....													1
11.....					1						1	2	1
12.....	2				2						3		18
13.....					10						2	2	10
14.....					2						1	1	6
15.....					3						1		2
16.....					1						2	1	
17.....					8						4	3	4
18.....					7								7
19.....					4						10		2
20.....	1				5						4		5
21.....	2				3						2	1	3
22.....					2						1	2	2
23.....	1				2						2	1	1
24.....					5						1		4
25.....					4								1
26.....					1								1
Total.....	12			2	122				1		69	32	119
Unknown.....													
Nonresidents.....	1			1	5								
Grand total.....	13			3	127				1		69	32	119
Corresponding month last year..	3			8	93				7		118	9	84

Included in the nonresidents were the following cases brought to Boston

COMMUNICABLE DISEASES.

Cases Reported.

August, 1913.

Scarlet Fever.	Smallpox.	Tetanus.	Trachoma.	Trichinosis.	Tuberculosis (Pulmonary and Miliary).	Tuberculosis (Other Forms).	Typhoid Fever.	Typhus Fever.	Varicella.	Whooping Cough.	Yellow Fever.	WARDS.
6	1	.....	7	1	1	.....	1	1	.....	1
.....	3	.....	2	.....	2	6	.....	2
1	2	1	.....	.....	.....	4	.....	3
.....	5	.....	2	.....	1	2	.....	4
1	2	1	.....	.....	.....	1	.....	5
1	1	.....	14	2	5	.....	3	17	.....	6
2	2	.....	20	.....	1	.....	.....	5	.....	7
3	20	2	4	.....	1	18	.....	8
2	1	.....	21	.....	3	.....	1	.....	.....	9
.....	8	.....	1	.....	2	7	.....	10
.....	4	.....	1	.....	.....	3	.....	11
1	11	1	2	.....	.....	7	.....	12
4	1	.....	9	2	2	.....	.....	3	.....	13
6	11	.....	2	.....	2	.....	.....	14
.....	6	1	2	.....	.....	9	.....	15
1	9	1	5	.....	.....	1	.....	16
3	7	.....	2	.....	.....	9	.....	17
.....	9	2	1	.....	.....	3	.....	18
2	8	.....	4	.....	.....	7	.....	19
3	11	1	4	.....	.....	1	.....	20
.....	8	.....	4	.....	1	1	.....	21
.....	4	.....	1	.....	1	3	.....	22
2	10	.....	1	.....	.....	.....	.....	23
.....	7	.....	4	.....	2	5	.....	24
1	8	1	2	.....	.....	2	.....	25
2	3	1	.....	.....	.....	.....	.....	26
41	6	.....	227	17	56	.....	17	115	.....	Total
.....	Unknown
2	1	4	.....	19	2	4	.....	.....	1	.....	Nonresidents
43	1	10	.....	246	19	60	.....	17	116	.....	Grand total
29	3	.....	257	22	68	.....	22	107	.....	Corresponding month last year

for treatment: Diphtheria, 5; scarlet fever, 2; typhoid fever, 4.

DIVISION OF CHILD HYGIENE.—AUGUST, 1913.

Pre-Natal and Post-Natal Work.

1. *Pre-Natal.*

Number cases	14	Babies born	3
Number visits	29	Breast-fed	3

Mothers attended as follows:

Family physician	2	Hospital	1
----------------------------	---	--------------------	---

2. *Post-Natal.*

Number cases	2,413	Number visits	6,875
------------------------	-------	-------------------------	-------

Visits were made to 308 homes, where babies were not seen, on account of wrong addresses, removal, etc.

Breast-fed	1,661	Breast and bottle fed	215
Bottle-fed	537		

Defective conditions noted as follows:

Umbilical hernia	12	Skin disease	12
Improper feeding	133	Miscellaneous	10
Ophthalmia	44		

2. Physical Examination of Licensed Minors.

There were 253 girls and 260 boys between the ages of 14 and 16 years examined during the month. One hundred and twenty-one were found to be without defects and 392 were found to be defective, as follows:

Hearing	2	Cardiac disease	6
Eyesight	64	Orthopedic defects	3
Defective nasal breathing	5	Skin	5
Hypertrophied tonsils	12	Miscellaneous	1
Defective teeth	359		

BACTERIOLOGICAL LABORATORY.

DIPHTHERIA:			GONORRHEA:		
Positive for diagnosis...	69		Positive.....	48	
Positive for release.....	27		Negative.....	110	
Negative for diagnosis....	438		Unsatisfactory.....	1—	159
Negative for release.....	162		GONORRHEAL OPHTHALMIA:		
"No growth" cultures....	6—	702	Positive.....	0	
TUBERCULOSIS:			Negative.....	55	
Positive.....	82		Unsatisfactory.....	1—	56
Negative.....	252		OTHER EXAMINATIONS:		
Unsatisfactory.....	0—	334	*Positive.....	5	
TYPHOID:			Negative.....	55	
Positive.....	42		Unsatisfactory.....	1—	61
Atypical.....	19		BACTERIOLOGICAL MILK		
Negative.....	165—	226	EXAMINATIONS.....	580—	580
GLANDERS: Strauss. C. F. Ag.			Bacteriological ice cream		
Positive.....	0		examinations.....	31—	31
Negative.....	0		Total.....		2,149
Unsatisfactory.....	0		SPECIAL WORK:		
Atypical.....	0—	0	Three samples of water for bacterial con-		
			tent and pollution.		

* Paratyphoids, Shiga bacillus, specimen for T. B., malaria, G-U. T. B.

INSPECTION OF MILK, VINEGAR, ETC.

Examination as to Statute Requirements.

Samples examined, milk from stores.....	280
" " " milk from wagons.....	598
" " " milk brought in by citizens.....	19
" " " milk for bacteriological examination.....	580
" " " bacteriological ice cream.....	31
" " " vinegar.....	54
" " " ice cream.....	37
Total samples.....	1,599

INSPECTED AT BRIGHTON ABATTOIR.

Cattle inspected.....	325	Cattle condemned (1 whole)....	328 lbs.
Calves inspected.....	464	Cattle condemned (parts of 52)...	1,338 lbs.
Sheep inspected.....		Calves condemned (2 whole)....	62 lbs.
Swine inspected.....	3,635	Sheep condemned.....	— lbs.
		Swine condemned (2 whole)....	529 lbs.
		Swine condemned (parts of 147),	1,813 lbs.

INSPECTION OF PROVISIONS.—ARTICLES CONDEMNED.

Meats.		Miscellaneous.	
Veal (tainted).....	115 lbs.	Lobster (dead).....	— lbs.
Veal not stamped.....	201 lbs.	Fish (tainted).....	500 lbs.
Veal (immature).....	32 lbs.	Apples (decayed).....	— bush.
Mutton (tainted).....	— lbs.	Nut meats (decayed).....	24 lbs.
Beef (tainted).....	99 lbs.	Beans (decayed).....	1 bush.
Pork (tainted).....	23 lbs.		
Poultry (tainted).....	166 lbs.		
Frogs legs (tainted).....	22 lbs.		

SANITARY INSPECTION DIVISION.

New reports.....	2,186
Reinspections.....	11,083
New tenement house reports.....	580
Nuisances reported.....	6,730
Legal notices.....	577
Court cases.....	17
Fines.....	214
Tenements vacated.....	1
Milk applications approved.....	111
Stable permits granted.....	3
Stable permit hearings.....	2
Stable permits refused.....	1
Dump permits refused.....	1

QUARANTINE.

Vessels inspected at quarantine.....	68
Total immigrants arriving in Boston.....	4,903

MONTHLY METEOROLOGICAL SUMMARY

Taken at Weather Bureau, Boston, August, 1913.

DAY.	TEMPERATURE, DEGREES FAHRENHEIT.			Relative Humidity.	Daily Precipitation.	Actual Hours Sun- shine.	WIND.		
	Maximum.	Minimum.	Mean.				Average Hourly Velocity. (Miles.)	Maximum Velocity. (Miles.)	Prevailing Direction.
1.....	75	62	68	84	0	4.2	6.7	14	E.-S. W.
2.....	88	69	78	70	.37	5.8	7.1	14	W.
3.....	89	66	78	58	0	10.6	7.0	15	S. W., W.
4.....	72	61	66	82	.21	4.4	6.4	13	E.
5.....	80	59	70	64	0	12.6	8.1	17	N. W.
6.....	82	63	72	74	0	8.1	9.7	18	S. W.
7.....	76	62	69	85	T	11.0	6.9	15	E.
8.....	76	58	67	85	0	4.3	7.5	16	E.
9.....	85	65	75	78	0	9.0	13.9	24	S. W.
10.....	88	66	77	70	.04	7.0	10.2	19	W.
11.....	72	57	64	56	0	8.5	10.5	20	N. W.
12.....	75	56	66	49	0	12.3	7.7	13	S. E.
13.....	75	60	68	80	.18	5.9	7.9	18	S. W.
14.....	70	60	65	80	0	10.8	5.7	13	E.
15.....	77	58	68	75	0	9.0	7.0	17	S. W.
16.....	89	62	76	79	0	12.3	8.7	20	S. W.
17.....	96	68	82	74	0	10.9	7.1	13	S. W.
18.....	91	71	81	79	T	7.1	6.8	16	S. W.
19.....	74	63	68	66	0	12.2	11.2	21	N. E.
20.....	69	58	64	58	0	13.7	9.0	17	E.
21.....	70	58	64	60	0	13.6	8.2	22	W.
22.....	76	57	66	68	0	11.4	12.5	24	S. W.
23.....	84	68	76	74	.34	9.0	13.1	26	S. W.
24.....	82	63	72	64	0	13.2	8.3	16	W.
25.....	75	58	66	38	0	13.5	9.2	17	N. W.
26.....	80	56	68	74	0	13.4	10.8	26	S. W.
27.....	81	67	74	82	.80	4.1	10.6	37	S. W.
28.....	74	64	69	70	0	10.4	9.2	14	N. W.
29.....	72	66	69	95	.52	0	10.5	24	S.
30.....	79	66	72	89	.40	6.5	9.7	19	S. W.
31.....	84	63	74	69	0	11.9	6.7	12	W.
Totals.....	—	—	—	—	2.86	286.7	—	—	—
Means.....	79.2	62.3	70.7	71.9	0.09	67%	8.8	27th	S. W.

Latitude 42 degrees 21 minutes.

Longitude 71 degrees 4 minutes.

BOSTON WARD MAP.



1559

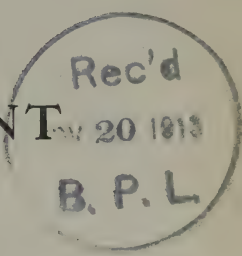
MONTHLY BULLETIN

OF THE

HEALTH DEPARTMENT

OF THE

CITY OF BOSTON



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ORGANIZATION OF THE HEALTH DEPARTMENT

FRANCIS X. MAHONEY, M. D., *Chairman.*

P. H. MULLOWNEY, M. D. V.

F. H. SLACK, M. D., *Secretary.*



MONTHLY BULLETIN

OF THE

HEALTH DEPARTMENT OF THE CITY OF BOSTON.

All communications relating to this publication should be addressed to
BULLETIN OF THE HEALTH DEPARTMENT, 100 Summer St., Boston.

VOL. 2.

BOSTON, SEPTEMBER, 1913.

No. 9.

SUMMARY OF VITAL STATISTICS FOR THE MONTH OF SEPTEMBER, 1913.

Boston had 885 deaths in September, 1913, compared with 896 for September of last year, and a death rate of 14.64 against 15.14 for September, 1912. Deaths of nonresidents numbered 148 against 137 a year ago. Deducting deaths of nonresidents the corrected death rate for September, 1913, was 12.19 against 12.83 for September, 1912.

Of deaths from reportable diseases the principal decreases were: Tuberculosis (all forms), 28; and measles, 3; and the principal increases were diphtheria and croup, 9; whooping cough, 5; and typhoid fever, 2.

Other important differences were as follows:

September, 1913, decreases compared with September, 1912:

"Other diseases"	38
Diarrhea and enteritis (under 2 years)	13
Violent deaths	7

September, 1913, increases compared with September, 1912:

Organic heart diseases, Bright's disease and nephritis	32
Cancer	23
Apoplexy and softening of the brain	17
Puerperal septicemia	7

Ward 11 again had the lowest death rate, 6.33, and Ward 4 the highest, 27.32. There were 17 less deaths under one year than in September, 1912, 20 less under 5 years, and 47 more over 60.

Total deaths under one year numbered 218, which is 36 less than the average number for September for the preceding five years. Of these 218 deaths, 91 were due to diarrhea and

enteritis, 74 to premature birth, congenital debility, malformations and other diseases peculiar to early infancy; 17 to pneumonia and broncho-pneumonia; 17 to reportable diseases and 19 to other causes.

Of deaths under one year Wards 1 and 6 had the largest numbers, 11 each. One hundred and sixty-nine were over two weeks old and of these 139 were bottle-fed.

Total deaths for the first nine months of 1913 numbered 8,942 against 8,771 for the corresponding period of last year, giving death rates respectively of 16.26 and 16.27.

Total deaths under 1 year for the same period numbered 1,645 this year against 1,683 last year.

VITAL STATISTICS.

GENERAL STATISTICS.

Population, Ward Area, Persons to Acre, and Rates.

	Land Area in Acres.	Population, 1910 Census.	Persons to Acre of Land. (Using Census Population.)	Population, Estimated, July 1, 1913.†	STILLBIRTHS EXCLUDED.		
					Death Rates, 1912. (Population Estimated.)†	Birth Rates, 1911. (Population Estimated.)†	Death Rates, 1912, of Children Under One Year, Per 1,000 Births, 1911.
* Boston.....	27,674	686,092	24.8	735,399	16.17	25.99	119.35
Wards 1.....	1,188	29,676	24.9	32,439	13.05	24.90	104.58
2.....	357	28,812	80.7	30,676	17.11	33.37	120.81
3.....	332	15,339	46.2	15,667	15.29	26.84	106.02
4.....	301	13,294	44.1	13,808	18.02	25.50	148.26
5.....	207	12,811	61.9	12,914	16.69	24.28	118.59
6.....	293	35,758	122.0	39,492	16.18	48.81	100.33
7.....	394	14,913	37.9	14,483	20.05	26.57	94.39
8.....	171	32,430	189.6	33,479	12.07	33.21	70.64
9.....	186	26,427	141.5	29,214	15.13	27.40	106.24
10.....	394	25,320	64.3	26,277	11.86	10.51	114.81
11.....	663	27,444	41.4	30,738	9.69	14.22	63.73
12.....	235	24,294	103.4	25,948	14.98	14.57	181.82
13.....	611	21,561	35.3	21,501	17.24	31.11	117.91
14.....	405	23,584	58.2	24,527	14.44	24.14	115.92
15.....	277	21,216	76.6	21,803	14.80	20.25	119.82
16.....	564	25,633	45.6	28,033	12.75	24.23	110.42
17.....	460	26,426	57.4	27,793	15.49	25.65	117.22
18.....	220	22,735	103.3	23,133	17.08	25.08	99.30
19.....	760	31,714	41.7	33,332	13.77	22.77	111.41
20.....	1,716	55,720	32.5	64,723	12.97	20.33	158.90
21.....	640	30,511	20.5	33,085	13.54	17.53	85.14
22.....	760	29,975	38.1	31,403	12.50	20.55	100.48
23.....	7,617	30,668	4.0	33,423	12.13	19.93	94.94
24.....	3,252	37,749	11.6	41,695	12.63	23.73	103.11
25.....	2,740	26,575	9.7	29,661	11.95	24.73	96.21
26.....	2,869	15,507	5.4	16,152	12.29	29.59	107.30

* Hyde Park was annexed to Boston January 1, 1912, and became Ward 26. Under "Boston," in the above table, Hyde Park statistics are included.

† Population estimated by arithmetical method, using the censuses of 1905 and 1910.

‡ An infant asylum is located in this ward.

VITAL STATISTICS.

September. General Summary.

	1913.	1912
Total deaths	885	896
Population, estimated*	735,399	720,031
Death rate per 1,000	14.64	15.14
Deaths of nonresidents	148	137
Corrected death rate†	12.19	12.83

* Population estimated by arithmetical method, using the censuses of 1905 and 1910.

† Nonresidents not included.

September, 1913. Statement of Deaths.

Total number (stillbirths ex- cluded)		NATIVITY.	
	885	United States	565
		Ireland	147
		England and Wales	17
		Scotland	13
		Germany	15
		Canada	56
		Italy	25
		Russia and Poland	21
		Sweden and Norway	12
		France	—
		Other countries	8
		Unknown	6
SEX.		NATIVITY OF MOTHERS.	
Males	478	United States	261
Females	407	Ireland	290
		England and Wales	19
		Scotland	16
		Germany	25
		Canada	77
		Italy	56
		Russia and Poland	48
		Sweden and Norway	10
		France	1
		Other countries	21
		Unknown	61
CONDITION.			
Single	449		
Married	275		
Widowed	160		
Divorced	1		
Unknown	—		
COLOR.			
White	863		
Black (negro or mixed)	22		
Chinese	—		
Deaths of children:			
Under one year	218		
Under two years	249		
Under five years	267		
Stillbirths during the month,	58		

VITAL STATISTICS.

September, 1913.

Mortality by

Abridged List Class Number.	CAUSES OF DEATH.	TOTALS.		Under 1 Year.	1 Year.	2 Years.	3 Years.	4 Years.	Under 5 Years.	5 to 9 Years.	10 to 14 Years.	15 to 19 Years.
		1913.	1912.									
	Total, all causes..... ^{{1913} ¹⁹¹²	885 896	..... .....	218 235	31 29	8 8	4 12	6 3	267 287	16	15 8	16 15
1	Typhoid fever.....	11	9	.....	.....	.....	.....	.....	.....	.....	2	2
3	Malarial fever.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....
4	Smallpox.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
5	Measles.....	.....	3	.....	.....	.....	.....	.....	.....	.....	.....	.....
6	Scarlet fever.....	1	1	1	.....	.....	.....	.....	1	.....	.....	.....
7	Whooping cough.....	12	7	9	1	1	1	.....	12	.....	.....	.....
8	Diphtheria and croup.....	13	4	1	5	.....	1	1	8	3	1	.....
9	Influenza.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
11	Cholera nostras.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
12	Other epidemic diseases.....	4	5	2	.....	.....	.....	.....	.....	.....	.....	.....
13	Tuberculosis of the lungs.....	61	89	3	1	.....	.....	1	5	1	.....	2
14	Tuberculous meningitis.....	5	2	1	2	.....	.....	.....	3	1	.....	.....
15	Other forms of tuberculosis.....	6	9	.....	1	.....	.....	.....	1	.....	.....	1
16	Cancer, malignant tumor.....	80	57	.....	.....	.....	.....	.....	.....	.....	.....	.....
17	Simple meningitis (except cerebro- spinal meningitis).....	4	5	2	1	.....	.....	.....	3	.....	.....	.....
17a	Cerebro-spinal meningitis.....	3	2	1	.....	.....	.....	.....	1	1	1	.....
18	Apoplexy and softening of the brain.....	49	32	1	.....	.....	.....	.....	1	.....	.....	.....
19	Organic heart diseases.....	111	98	1	.....	.....	.....	1	2	.....	1	1
20	Acute bronchitis.....	3	5	2	.....	.....	.....	.....	2	.....	.....	.....
21	Chronic bronchitis.....	2	1	.....	.....	.....	.....	1	1	.....	.....	.....
22	Pneumonia (except broncho-pneu- monia).....	46	48	9	2	1	.....	.....	12	.....	.....	1
22a	Broncho-pneumonia.....	22	18	8	3	1	1	1	14	.....	.....	.....
23	Other respiratory diseases.....	1	4	1	.....	.....	.....	.....	1	.....	.....	.....
24	Diseases of the stomach (cancer ex- cepted).....	7	12	2	.....	1	.....	.....	3	.....	.....	.....
25	Diarrhea and enteritis (under two years).....	101	114	91	10	.....	.....	.....	101	.....	.....	.....
26	Appendicitis and typhlitis.....	9	12	.....	.....	.....	.....	.....	.....	.....	3	.....
27	Hernia, intestinal obstruction.....	9	6	1	.....	1	.....	.....	2	.....	.....	.....
28	Cirrhosis of liver.....	6	9	.....	.....	.....	.....	.....	.....	.....	.....	.....
29	Bright's disease and nephritis.....	57	38	.....	1	.....	.....	.....	1	.....	.....	.....
30	Diseases of women (not cancer)...	5	3	.....	.....	.....	.....	.....	.....	.....	.....	.....
31	Puerperal septicemia.....	9	2	.....	.....	.....	.....	.....	.....	.....	.....	2
32	Other puerperal diseases.....	1	8	.....	.....	.....	.....	.....	.....	.....	.....	.....
33	Congenital debility and malforma- tions.....	57	60	57	.....	.....	.....	.....	57	.....	.....	.....
34	Old age.....	6	2	.....	.....	.....	.....	.....	.....	.....	.....	.....
35	Violent deaths.....	54	61	.....	2	2	1	.....	5	1	5	2
36	Suicide.....	7	7	.....	.....	.....	.....	.....	.....	.....	.....	.....
37	Other diseases.....	123	161	25	2	1	.....	1	29	1	2	5
38	Ill-defined causes.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....

VITAL STATISTICS.

Cause and Age.

September, 1913.

20 to 24 Years.	25 to 29 Years.	30 to 34 Years.	35 to 39 Years.	40 to 44 Years.	45 to 49 Years.	50 to 54 Years.	55 to 59 Years.	60 to 64 Years.	65 to 69 Years.	70 to 74 Years.	75 to 79 Years.	80 to 84 Years.	85 to 89 Years.	90 Years and over.	Sex.		Abridged List Class Number.
															Males.	Females.	
21 38	34 29	22 49	44 61	53 47	49 43	47 57	56 40	64 54	57 40	48 41	44 36	23 24	9 11	8	478 483	407 413	
5	.....	.....	.....	.....	.....	1	1	.....	.....	.....	.....	.....	.....	.....	7	4	1
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	3
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	4
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	5
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	6
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	5	7	7
.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	7	6	8
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	9
.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	1	.....	.....	.....	1	3	12
5	6	3	9	7	7	5	3	4	3	.....	1	.....	.....	.....	35	26	13
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	5	14
.....	.....	1	1	.....	1	.....	.....	.....	1	.....	.....	.....	.....	.....	4	2	15
.....	3	.....	5	8	12	8	10	11	8	7	6	1	.....	1	38	42	16
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	3	1	17
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	2	1	17a
.....	.....	2	2	2	1	4	6	4	6	8	7	4	1	1	18	31	18
4	3	3	5	7	7	7	13	15	15	10	9	5	3	1	54	57	19
.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	3	.....	20
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	2	21
.....	.....	2	1	3	5	2	6	7	2	1	1	1	1	1	32	14	22
.....	.....	1	.....	.....	1	1	2	.....	.....	.....	2	.....	.....	1	13	9	22a
.....	.....	.....	.....	.....	2	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	1	23
.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	4	3	24
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	55	46	25
.....	3	.....	1	.....	.....	1	.....	1	.....	.....	.....	.....	.....	.....	6	3	26
.....	1	.....	.....	.....	.....	2	3	.....	.....	1	.....	.....	.....	.....	6	3	27
1	.....	.....	.....	1	1	.....	1	1	1	.....	.....	.....	.....	.....	4	2	28
.....	3	2	3	3	.....	7	4	7	7	5	7	4	1	.....	28	29	29
.....	1	2	1	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	5	30
1	1	.....	4	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	9	31
.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	32
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	35	22	33
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	1	3	.....	1	1	5	34
1	6	1	4	8	5	2	1	1	1	6	2	2	.....	1	40	14	35
.....	2	1	.....	1	.....	.....	1	1	1	.....	.....	.....	.....	.....	3	4	36
4	5	4	6	11	3	6	5	11	11	8	6	3	2	1	74	49	37
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	38

VITAL STATISTICS.

September, 1913.

Mortality by

Abridged List Class Number.	CAUSES OF DEATH.	Boston.	WARD RESIDENCE.										
			1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
	All causes.....	885	35	41	17	31	12	38	23	25	26	17	16
	Rates per 1,000 popula- {1913 14.64 13.13 16.26 13.20 27.32 11.31 11.71 19.32 9.09 10.83 7.87 6.33												
	tion..... {1912 15.14 18.11 14.15 16.42 16.94 16.06 10.16 25.80 10.64 11.16 13.11 4.10												
1	Typhoid fever.....	11		1		2		2					
3	Malarial fever.....												
4	Smallpox.....												
5	Measles.....												
6	Scarlet fever.....	1											
7	Whooping cough.....	12		2	1	1							
8	Diphtheria and croup.....	13	2	2									
9	Influenza.....												
12	Other epidemic diseases.....	4		1			1						
13	Tuberculosis of the lungs.....	61	4	3	2	2		4	5	1	5		1
14	Tuberculous meningitis.....	5										1	
15	Other forms of tuberculosis...	6			1		1						
16	Cancer, malignant tumor....	80	3	5		1	3	2	1	1	7	5	3
17	Simple meningitis (except	4						1					
	cerebro-spinal meningitis).												
17a	Cerebro-spinal meningitis....	3		1				1				1	
18	Apoplexy and softening of the	49		2	3	4		2	2	1		1	1
	brain.												
19	Organic heart diseases.....	111	3	8	2	3		3	4	2	3	4	5
20	Acute bronchitis.....	3	1										
21	Chronic bronchitis.....	2						1					
22	Pneumonia (except broncho-	46	2	2		1	2	2	2	3	2	1	3
	pneumonia).												
22a	Broncho-pneumonia.....	22					2	4					
23	Other respiratory diseases....	1											
24	Diseases of the stomach (cancer	7							1	1			
	excepted).												
25	Diarrhea and enteritis (under	101	3	2	3	6	1	3	2	3	3		1
	two years).												
26	Appendicitis and typhlitis....	9											
27	Hernia, intestinal obstruction,	9	1	1									
28	Cirrhosis of liver.....	6	1					1	1				
29	Bright's disease and nephritis..	57		3	1	1	1	4		2	1		
30	Diseases of women (not cancer),	5						1		1			
31	Puerperal septicemia.....	1		1									
32	Other puerperal diseases.....	9				1		1					
33	Congenital debility and mal-	57	6	1	2	2	1	2		4	2	2	1
	formations.												
34	Old age.....	6	1	1					1				
35	Violent deaths.....	54	2	1	1	4		2		3	1		1
36	Suicide.....	7											
37	Other diseases.....	123	6	4	1	3		2	4	3	2	2	
38	Ill defined causes.....												
	Total deaths under one year..	218	11	9	7	6	4	11	3	7	5	4	2

Of deaths of nonresidents from typhoid fever, measles, scarlet fever and diphtheria the follow-

VITAL STATISTICS.

Cause and Residence.

September, 1913.

WARD RESIDENCE.

12.	13.	14.	15.	16.	17.	18.	19.	20.	21.	22.	23.	24.	25.	26.	Boston, Ward Unknown.	Nonresidents.	Unknown.	Abridged List Class Number.
33	35	25	22	24	31	25	27	46	33	25	24	46	33	21	...	148	6	...
15.47	19.81	12.40	12.28	10.42	13.57	13.15	9.86	8.65	12.14	9.69	8.74	13.42	13.54	15.82	...	...	...	...
13.87	24.31	15.06	12.38	13.38	18.23	14.81	12.97	8.45	10.55	9.83	9.71	10.22	9.33	10.68	...	...	...	...
...	1	1	...	...	...	1	2	...	...	...	...	...	...	...	...	1	...	1
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	4
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	5
...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	...	6
2	...	2	1	...	...	...	...	...	...	...	...	...	...	...	...	3	...	7
...	2	...	1	1	...	...	...	...	1	...	...	...	...	2	...	2	...	8
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	9
...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...	1	...	12
...	3	...	1	1	4	3	3	2	3	1	2	3	...	...	...	7	1	13
...	...	...	...	...	1	...	...	...	...	...	...	...	1	...	...	2	...	14
...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	3	...	15
3	1	1	1	4	3	2	2	3	6	2	1	3	4	1	...	12	...	16
1	1	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	17
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	17a
1	1	...	4	1	2	1	2	7	2	1	2	4	...	2	...	3	...	18
5	2	4	2	2	3	3	4	6	6	5	3	8	6	4	...	10	1	19
...	1	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	20
...	...	...	...	...	...	...	...	...	...	1	...	...	...	...	...	...	...	21
2	3	3	...	1	...	1	4	3	2	...	1	2	...	1	...	3	...	22
1	...	1	2	...	1	2	1	...	...	1	1	3	...	...	...	3	...	22a
...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	23
1	...	...	...	1	1	...	...	...	...	...	...	...	...	...	...	2	...	24
1	4	2	3	2	3	3	...	2	2	2	2	4	4	4	...	32	4	25
...	1	...	...	...	...	...	1	2	1	...	...	...	1	...	...	3	...	26
1	...	...	...	...	1	...	...	1	1	1	...	1	...	...	...	1	...	27
...	1	...	...	...	...	1	...	...	...	...	1	...	...	...	...	...	...	28
3	1	1	2	...	1	...	1	6	4	1	4	2	7	2	...	9	...	29
...	...	...	...	...	...	...	...	...	1	...	...	1	...	...	...	1	...	30
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	31
...	...	...	...	...	1	1	...	1	...	1	...	...	1	...	...	2	...	32
2	4	2	1	2	3	1	1	1	1	3	...	1	2	1	...	9	...	33
1	...	...	...	...	...	...	...	...	...	1	...	...	1	...	...	...	...	34
4	...	2	1	2	3	3	3	3	1	...	1	4	...	2	...	10	...	35
...	...	...	...	1	...	...	...	...	...	...	2	...	...	...	...	4	...	36
5	8	7	2	4	3	3	3	8	2	5	3	10	6	2	...	25	...	37
...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	38
8	10	8	4	7	9	5	2	5	2	5	3	9	8	6	...	54	4	...

ing occurred among cases brought to Boston for treatment: Typhoid fever, 1; diphtheria, 1.

VITAL STATISTICS.

September, 1913, Infant Mortality.

Detailed List Class Number.	CAUSES OF DEATH.	SEPTEMBER TOTALS, UNDER 1 YEAR.		Under 1 Day.	1 to 2 Days.	2 to 3 Days.	3 Days to 1 Week.	1 to 2 Weeks.	2 to 3 Weeks.	3 Weeks to 1 Month.	1 to 2 Months.	2 to 3 Months.	3 to 6 Months.	6 to 9 Months.	9 to 12 Months.	AGED 2 WEEKS AND OVER.		Nonresidents.
		1913.	1912.													Breast Fed.	Bottle Fed.	
	Total.....	218	235	22	6	5	4	12	8	11	20	13	56	39	22	30	139	54
	Male.....	133	124	15	4	3	3	8	6	7	14	7	36	22	8	21	79	36
	Female.....	85	111	7	2	2	1	4	2	4	6	6	20	17	14	9	60	18
	White.....	214	230	22	6	5	4	12	8	11	20	13	53	39	21	29	136	54
	Colored.....	4	5										3		1	1	3	
1	Typhoid fever.....																	
5	Smallpox.....																	
6	Measles.....																	
7	Scarlet fever.....	1													1		1	
8	Whooping cough.....	9	5								1		2	2	4	1	8	3
9	Diphtheria and croup.....	1								1							1	1
10	Influenza.....																	
14	Dysentery.....	1	1										1			1		
18	Erysipelas.....		1															
19	Other epidemic diseases.....	1						1										
20	Pus-infection and septicemia.....	5							1				3	1			5	3
24	Tetanus.....																	
28	Tuberculosis of the lungs....	3	1								1			1	1		3	
29	Acute miliary tuberculosis....																	
30	Tuberculous meningitis.....	1												1		1		
31 35	Other forms of tuberculosis.....		2															
36	Ricketts.....	1	6										1				1	
37	Syphilis.....																	
38	Gonococcus infection.....																	
61	Simple meningitis.....	2	1											2			2	
61a	Cerebro-spinal fever.....	1	1										1				1	
63a	Acute poliomyelitis.....																	
71	Convulsions.....		2															
76	Diseases of the ears.....	2	1						1					1			2	1
79	Organic diseases of the heart,	1	1											1			1	
89	Acute bronchitis.....	2	3										1	1			2	
91	Broncho-pneumonia.....	8	9							1		2	1	2	2	3	5	1
92	Pneumonia.....	9	8						1				4	1	3	3	6	2
93	Pleurisy.....	1												1			1	
103	Other diseases of stomach....	2	8								1		1			1	1	1
104	Diarrhea and enteritis.....	91	99					1	1	3	13	6	35	22	10	15	75	31
108	Appendicitis and typhlitis ..																	

VITAL STATISTICS.

September, 1913, Infant Mortality.—*Concluded.*

Detailed List Class Number.	CAUSES OF DEATH.	SEPTEMBER TOTALS, UNDER 1 YEAR.		Under 1 Day.	1 to 2 Days.	2 to 3 Days.	3 Days to 1 Week.	1 to 2 Weeks.	2 to 3 Weeks.	3 Weeks to 1 Month.	1 to 2 Months.	2 to 3 Months.	3 to 6 Months.	6 to 9 Months.	9 to 12 Months.	AGED 2 WEEKS AND OVER.		Nonresidents.	
		1913.	1912.													Breast Fed.	Bottle Fed.		
109	Hernias,intestinal obstruction,	1	1											1			1		
117	Simple peritonitis.....																		
119	Acute nephritis.....																		
143	Furuncle.....																		
144	Acute abscess.....		1																
145	Other diseases of skin, etc....		1																
150a	Hydrocephalus.....		1																
b	Congenital malformations of heart.	4	9	1						1		2					1	2	
c	Other malformations.....	5	5			1		2		2							1	1	
151a	Premature birth.....	30	23	12	4	2	2	5	1	2		1	1					5	5
b	Congenital debility.....	18	22	1				1	3		3	2	5	2	1	2	14	4	
152a	Injuries at birth.....	10	10	4	1	1	2	2										1	
b	Other causes peculiar to early infancy.	7	7	5		1					1						1	1	
167	Burns (conflagrations ex- cepted).																		
168	Absorption of deleterious gases,		3																
172	Traumatism by fall.....																		
182	Homicide.....																		
184																			
187	Ill-defined diseases.....																		
189																			
	Other causes.....	1	3							1							1		
	Breast fed *.....	30	49						2	2	2	3	10	6	5	30		4	
	Bottle fed *.....	139	134						6	9	18	10	46	33	17		139	46	
	Nonresidents.....	54	40	3			1		1	4	9	4	17	11	4	4	46	54	

* Aged two weeks and over.

Additional Deaths for Other Months.

July, 1913.—1 male; organic diseases of the heart; white; aged 50 years; condition unknown; residence Ward 2; born in Ireland; mother born in Ireland.

Aug., 1913.—1 male; tuberculosis of lungs; black; aged 50 years; single; residence Ward 11; born in United States; birthplace of mother unknown.

1 male; organic diseases of the heart; white; aged 28 years; condition unknown; residence Ward 6; born in Ireland; mother born in Ireland.

1 female; organic diseases of the heart; white; aged 85 years; single; residence Ward 21; born in United States; mother born in United States.

1 female; organic diseases of the heart; white; aged 48 years; single; residence Ward 20; born in United States; mother born in United States.

1 male; organic diseases of the heart; white; aged 64 years; divorced; nonresident; born in United States; mother born in United States.

1 male; broncho-pneumonia; white; aged 41 years; condition unknown; residence unknown; born in England or Wales; mother born in England or Wales.

**DIVISION OF COMMUNICABLE DISEASES,
SEPTEMBER, 1913.**

Medical Inspectors.

New cases visited:

Diphtheria:

a. Isolation	113
b. Diagnosis	2

Scarlet fever:

a. Isolation	20
b. Diagnosis	4
c. Release	20

Typhoid fever:

a. Isolation	130
------------------------	-----

Measles:

a. Isolation	10
b. Diagnosis	1

Poliomyelitis	2
-------------------------	---

Cerebro-spinal meningitis	2
-------------------------------------	---

Infantile paralysis	2
-------------------------------	---

Varicella:

a. Isolation	2
b. Diagnosis	3

Ophthalmia neonatorum	9
---------------------------------	---

Tuberculosis	17
------------------------	----

Infectious diarrhea	1
-------------------------------	---

Deaths investigated	18
-------------------------------	----

Vaccinations performed	628
----------------------------------	-----

Certificates granted	297
--------------------------------	-----

Anti-typhoid inoculations	50
-------------------------------------	----

Nurses.

New cases visited:

Diphtheria	178
Scarlet fever	60
Typhoid fever	109
Whooping cough	35
Ophthalmia neonatorum	121
Measles	42
Varicella	31
Malaria	3

New cases visited:

Cerebro-spinal meningitis	6
Poliomyelitis	7
Trachoma	5

Old cases visited:

Diphtheria	278
Scarlet fever	199
Typhoid fever	241
Poliomyelitis	23
Whooping cough	25
Ophthalmia neonatorum	289
Measles	36
Varicella	18
Cerebro-spinal meningitis	9
Diphtheria cultures taken	162

Forcible Removals.

Diphtheria	1
Scarlet fever	1
Typhoid fever	10

Disinfections.

Diphtheria	151
Scarlet fever	47
Tuberculosis	175

DIVISION OF

September, 1913. Cases Reported.

WARDS.	Anterior Poliomyelitis.	Actinomycosis.	Asiatic Cholera.	Bubonic Plague.	Cerebro-spinal Meningitis.	Diphtheria.	Glanders.	Leprosy.	Malaria.	Malignant Pustule.	Measles.	Mumps.	Ophthalmia Neonatorum.
1.....						8			1		3	1	2
2.....					2	9					4	2	15
3.....						5							2
4.....					1	2					1		2
5.....						6						1	1
6.....	1				2	31			1		8	2	13
7.....													3
8.....	2					20					3	23	17
9.....	2				1	5			1		8		4
10.....					1	1							1
11.....					1	3					1	1	3
12.....						5					1	3	14
13.....						8					1		15
14.....						6							1
15.....	1					10					1		2
16.....					1	6			1		2	2	2
17.....						3					2	3	7
18.....						6					2		2
19.....					1	9					2		8
20.....						11					4	3	5
21.....						6							6
22.....	1					1					1		4
23.....						5			1				1
24.....						8					1	1	1
25.....	2					6						1	5
26.....						4					1		1
Total.....	9				10	184			5		46	33	137
Unknown.....													
Nonresidents.....	1					10			2				4
Grand total.....	10				10	194			7		46	33	141
Corresponding month last year..	3				7	100			6		70	8	78

Included in the nonresidents were the following cases brought to Boston

COMMUNICABLE DISEASES.

Cases Reported.

September, 1913.

Scarlet Fever.	Smallpox.	Tetanus.	Trachoma.	Trichinosis.	Tuberculosis (Pulmonary and Miliary).	Tuberculosis (Other Forms).	Typhoid Fever.	Typhus Fever.	Varicella.	Whooping Cough.	Yellow Fever.	WARDS.
4					7	1						1
9			2		13	3	8		1	5		2
1					3	1	9			5		3
					4		20			3		4
1					6	2	2		2			5
1			1		12	6	18		3	4		6
			1		10				1			7
8			1		19	1	4		5	5		8
2					16		13					9
					7	1	2					10
1					2				2	1		11
2					9		3		1			12
3					7	2	2			1		13
2					2		2		5			14
					5		2			2		15
2					7		4		1	2		16
2					13	1	5		5			17
3					11		2					18
5					10		1			1		19
4					15	1	7		7			20
3					11		4		2			21
3					9		4		1	2		22
5					7	1			2			23
2					10		3		1			24
1					5	1	3		1	1		25
					1							26
64			5		221	20	119		40	32		Total
							1					Unknown
9			4		11	2	5					Nonresidents
73			9		232	22	125		40	32		Grand total
31	1	1	1		238	16	66		31	87		Corresponding month last year.

for treatment: Diphtheria, 10; scarlet fever, 9; typhoid fever, 5.

DIVISION OF CHILD HYGIENE.—SEPTEMBER, 1913.

Pre-Natal and Post-Natal Work.

1. Pre-Natal.

Number cases	7	Babies born	5
Number visits	13	Breast-fed	5

Mothers attended as follows:

Family physician	3	Midwife	1
Hospital	1		

2. Post-Natal.

Number cases	1,663	Breast-fed	1,169
Number visits	6,543	Bottle-fed	371
		Both feedings	123

Visits were made to 75 homes, where babies were not seen, on account of wrong address, removal, etc.

Defective conditions noted as follows:

Improper feeding	207	Skin disease	17
Umbilical hernia	9	Miscellaneous	28

Medical Inspection of Schools.

Number inspections made	119,466
Number physical examinations made	5,375
Number visits made to homes	40

There were 3,906 pupils excluded from school during the month, for the following causes:

Diphtheria	4	Syphilis	1
Scarlet fever	4	Pediculosis	3,194
Measles	4	Acute or purulent conjunctivitis	17
Chicken pox	6	Ringworm	15
Whooping cough	8	Scabies	41
Mumps	8	Impetigo	62
Pulmonary tuberculosis	4	Favus	2
Acute tonsilitis	34	Molluscum Contagiosum	4
Influenza	1	Miscellaneous	495
Gonorrhea	2		

There were 11,347 cases of noncontagious disease found, subdivided as follows:

Diseases of oral and respiratory tract	1,669
Diseases of the ear	38
Diseases of the eye	282
Diseases of the skin	635
Dental caries	3,369
Miscellaneous	5,354

Physical Examination of Licensed Minors.

There were 546 girls and 770 boys between the ages of 14 and 16 years examined during the month. Three hundred and eighty-four were found without defects and 932 with defects, as follows:

Eyesight	154	Nervous disease	2
Defective nasal breathing	7	Orthopedic defects	4
Hypertrophied tonsils	92	Skin	4
Defective teeth	773	Malnutrition	1
Pulmonary disease	6	Miscellaneous	2
Cardiac disease	19		

Certificates were refused at this time to 14 applicants.

BACTERIOLOGICAL LABORATORY.

DIPHTHERIA:			GONORRHEA:		
Positive for diagnosis...	144		Positive.....	32	
Positive for release.....	105		Negative.....	125	
Negative for diagnosis...	573		Unsatisfactory.....	0—	157
Negative for release.....	226		GONORRHEAL OPHTHALMIA:		
"No growth" cultures...	8—	1,056	Positive.....	0	
TUBERCULOSIS:			Negative.....	62	
Positive.....	101		Unsatisfactory.....	0—	62
Negative.....	303		OTHER EXAMINATIONS:		
Unsatisfactory.....	0—	404	*Positive.....	9	
TYPHOID:			Negative.....	48	
Positive.....	64		Unsatisfactory.....	0—	57
Negative.....	246		BACTERIOLOGICAL MILK		
Atypical.....	20		EXAMINATIONS.....	586—	586
Unsatisfactory.....	3—	333	Bacteriological ice cream		
GLANDERS:			examinations.....	23—	23
Positive.....	0		Bacteriological ice exam-		
Negative.....	0		inations.....	2—	2
Unsatisfactory.....	0—	0	Total.....		2,680

* K-L Vir. malaria, G-U. T. B., paratyphoids, typhoid feces and urine, leprosy.

INSPECTION OF MILK, VINEGAR, ETC.

Examination as to Statute Requirements.

Samples examined, milk from stores.....	410
" " milk from wagons.....	579
" " milk brought in by citizens.....	42
" " milk for bacteriological examination.....	586
" " bacteriological ice cream.....	23
" " vinegar.....	48
" " butter and cheese.....	4
" " ice cream.....	37
Total samples.....	1,729

INSPECTED AT BRIGHTON ABATTOIR.

Cattle inspected.....	651	Cattle condemned (2 whole)....	388 lbs.
Calves inspected.....	570	Cattle condemned (98 parts)....	3,111 lbs.
Sheep inspected.....	—	Calves condemned.....	— lbs.
Swine inspected.....	5,535	Sheep condemned.....	— lbs.
		Swine condemned (3 whole)....	379 lbs.
		Swine condemned (315 parts) ..	2,668 lbs.

INSPECTION OF PROVISIONS.—ARTICLES CONDEMNED.

Meats.		Miscellaneous.	
Veal (immature).....	326 lbs.	Fish (tainted).....	45 lbs.
Veal (tainted).....	180 lbs.	Eggs (decayed).....	49 doz.
Mutton (tainted).....	20 lbs.	Misc. fruit (decayed).....	21 bush.
Beef (tainted).....	31 lbs.	Misc. vegetables (decayed)....	17 bush.
Pork (tainted).....	222 lbs.	Potatoes (decayed).....	44 bush.
Poultry (tainted).....	330 lbs.	Peaches (decayed).....	249 bush.

SANITARY INSPECTION DIVISION.

New reports.....	1,958
Reinspections.....	*7,332
New tenement house reports.....	791
Nuisances reported.....	6,630
Legal notices.....	403
Court cases.....	9
Fines.....	\$134
Tenement vacated.....	1
Milk applications approved.....	95
Stable permit granted.....	1
Stable permit hearings.....	2
Stable permit refused.....	1
Dump permits granted.....	3

* During this month the duty of inspecting milk stores, restaurants, ice cream establishments and bakeries was transferred from the Sanitary Inspection Division to the Food Inspection Division, which fact will account for the decreased number of reinspections during September.

QUARANTINE.

Vessels inspected at quarantine.....	74
Total immigrants arriving in Boston.....	14,987

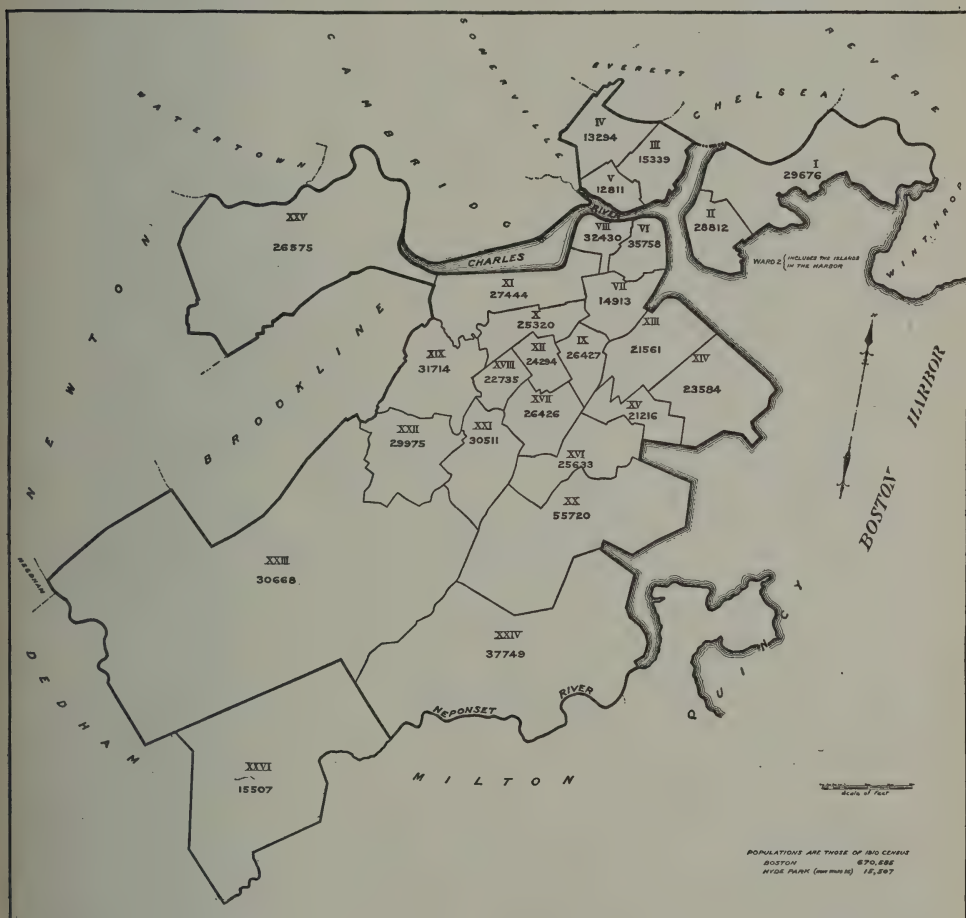
MONTHLY METEOROLOGICAL SUMMARY.
Taken at Weather Bureau, Boston, September, 1913.

DAY.	TEMPERATURE, DEGREES FAHRENHEIT.			Relative Humidity.	Daily Precipitation.	Actual Hours Sun- shine.	WIND.		
	Maximum.	Minimum.	Mean.				Average Hourly Velocity. (Miles.)	Maximum Velocity. (Miles.)	Prevailing Direction.
1.....	84	66	75	77	0	10.3	5.8	13	S. W.
2.....	83	67	75	72	0	12.3	6.2	14	S. W.
3.....	86	66	76	80	0	8.4	11.8	20	S. W.
4.....	73	57	65	90	.05	0	7.8	17	N. E.
5.....	62	55	58	89	.70	6.1	5.8	12	E.
6.....	70	54	62	68	0	11.8	6.7	12	E., W.
7.....	75	58	66	78	T	8.3	7.5	15	S. W.
8.....	86	65	76	73	.25	7.4	9.0	24	N. W.
9.....	65	50	58	50	0	11.0	12.4	23	N. W.
10.....	60	46	53	52	0	12.7	10.7	18	N.
11.....	60	47	54	68	T	6.5	7.6	13	S. E.
12.....	65	54	60	74	0	3.4	7.3	15	S. E.
13.....	73	52	62	68	.12	8.8	12.7	26	W.
14.....	64	46	55	52	0	12.4	10.2	17	W.
15.....	59	41	50	55	0	12.5	7.5	11	N. W.
16.....	65	46	56	64	0	12.4	7.2	12	E., S. W.
17.....	74	52	63	79	T	5.0	10.8	19	S. W.
18.....	77	57	67	90	.45	2.7	8.0	17	S. W.
19.....	58	55	56	94	.37	0	10.5	18	N. E.
20.....	59	56	58	100	.10	0	10.7	18	N. E.
21.....	65	58	62	100	.08	0	11.4	18	E.
22.....	77	64	70	92	.39	1.7	18.8	35	S.
23.....	71	54	62	64	0	11.9	9.4	15	W.
24.....	65	50	58	64	0	10.7	7.6	13	N. W.
25.....	69	51	60	64	0	9.0	6.4	13	N. W.
26.....	78	56	67	88	0	6.8	10.3	16	S. W.
27.....	68	52	60	54	0	10.6	11.8	21	N. W.
28.....	70	46	58	50	0	11.9	9.4	19	S. W.
29.....	76	53	64	68	0	8.5	11.0	20	S. W.
30.....	61	50	56	78	0	1.3	10.0	21	N. E.
31.....									
Totals.....	—	—	—	—	2.51	224.4	—	—	—
Means.....	69.9	54.1	62.1	73.2	0.08	60%	9.4	22d	S. W.

Latitude 42 degrees 21 minutes.

Longitude 71 degrees 4 minutes.

BOSTON WARD MAP.



MONTHLY BULLETIN

OF THE

HEALTH DEPARTMENT

OF THE

CITY OF BOSTON



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CITY OF BOSTON
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1913

ORGANIZATION OF THE HEALTH DEPARTMENT

FRANCIS X. MAHONEY, M. D., *Chairman.*

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F. H. SLACK, M. D., *Secretary.*



MONTHLY BULLETIN

OF THE

HEALTH DEPARTMENT OF THE CITY OF BOSTON.

All communications relating to this publication should be addressed to
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VOL. 2.

BOSTON, OCTOBER, 1913.

No. 10.

AN IMPORTANT DECISION OF THE SUPREME COURT.

BY ALEXANDER BURR, M. D. V.,

Chief of Division of Food Inspection, Boston Health Department.

The Legislature of 1912 passed a law which prohibited the bringing into Massachusetts of the carcass of any neat cattle, sheep or swine slaughtered without this state unless inspected at the time of slaughter by an official inspector and unless stamped or branded.

The Boston Board of Health upon the enactment of this law notified all receivers of dressed meats from other states and also the authorities in all adjoining states.

The first question to come up on the enforcement of this act was whether or not the carcass of an animal slaughtered by a farmer upon his own premises without inspection could be prohibited from sale in Massachusetts when it was permitted by an Act of Congress to enter into interstate trade without such inspection or stamping. The first case of violation of this law was brought to court by the Boston Board of Health and was carried to the Supreme Court. The decision which is given below is of importance to all boards of health.

FEBRUARY 26, 1913.

COMMONWEALTH *v.* MOORE.

*Meat Inspection — State Laws — Effect of Federal Laws —
Interstate Commerce.*

RUGG, C. J.—The defendant is charged with a violation of Statute of 1912, chapter 428, section 1, which is as follows:

Carcasses of neat cattle, sheep or swine slaughtered without the Commonwealth shall be deemed unfit for human food and shall not be sold or offered for sale unless they have been inspected at the time of slaughter

by an official inspector, and unless, if not condemned, they have been stamped or branded by said inspector in like manner as those inspected by the United States Bureau of Animal Industry for interstate trade. By "official inspector" is meant one appointed or approved either (a) by the Bureau of Animal Industry of the United States Department of Agriculture; or (b) by the State Board of Health of the state in which the animals are slaughtered; or (c) by the local board of health of the city or town in which the animals are slaughtered. The stamp used by inspectors other than those of the Bureau of Animal Industry of the United States Department of Agriculture shall indicate in letters not less than one-fourth of an inch high the name of the city or town in which the animals are slaughtered. Whoever sells or offers for sale, or has in his possession with intent to sell, a carcass, or any part thereof, required by the provisions of this section to be stamped or branded which has not been stamped or branded as herein provided, shall be punished by a fine of not more than one hundred dollars or by imprisonment for not more than sixty days, or by both such fine and imprisonment.

The material facts are that the defendant had in his possession in Boston a veal carcass with intent to sell. The animal was slaughtered outside the state by a farmer who raised it on his own farm, and who was not maintaining at the time any slaughtering or similar establishment. The carcass was consigned to N. E. Hollis & Co. of Boston, who sold it to the defendant. It was not inspected at the time of slaughter by an official inspector, nor was it stamped or branded, but was at all times healthy and fit for use as human food. It is said in the agreed facts that

The Commonwealth admits that the slaughter of the animal was performed in compliance with the requirements of the laws of the United States, as provided by an Act of Congress entitled "An Act Making Appropriations for the Department of Agriculture for the Fiscal Year Ending June 30, 1907." Approved June 30, 1906 (34 United States Statutes at Large, 674, volume 1, chapter 3913). (See, however, act of Congress entitled "An Act Making Appropriations for the Department of Agriculture for the Fiscal Year Ending June 30, 1908." Approved March 4, 1907 (35 United States Statutes at Large, 1260, 1265, volume 1, chapter 2907), and that "the present case comes under the exceptions made in said act of Congress in favor of animals slaughtered by a farmer on a farm."

We construe these two statements together to mean that the animal was slaughtered by a farmer within the exception of the Federal Act, for that act contains no regulation for such slaughtering, and there is nothing in the record to show that acting under it the Department of Agriculture has issued any regulation. Moreover, no point in this connection is made by the defendant other than those discussed in this opinion. The single question presented is the constitutionality of Statute 1912, chapter 248.

Its constitutionality is attacked in two aspects,—First, in the light of statute of United States just cited, which the Commonwealth admits was in force; and, second, independently of the operation of the Federal Enactment.

It is urged that the defendant being not the original consignee under interstate shipment, but a later purchaser after the goods had become commingled with the general mass of property and hence subject with all other domestic property to state laws, *Pervear v. Commonwealth*, 5 Wal. 475–479, is not within the class as to whom the act is unconstitutional, and therefore does not show that its unconstitutional features injure him, and is not in a position to question them. *Southern Railway Company v. King*, 217 U. S. 524, 534; *Darnell v. Indiana*, 226 U. S. 390, 398, and cases there cited. In any event the defendant would have a right to assail the validity of the statute as involving discrimination against articles of commerce shipped from another state. We prefer to treat all questions of constitutionality open to the defendant.

First.—The pertinent provisions of the Federal Act are that it confers full authority upon the Secretary of Agriculture to make inspection (*inter alia*) of all cattle before they are “allowed to enter any slaughtering, packing, meat-canning, rendering or similar establishment” for producing food products to be used in interstate or foreign commerce, and to make post-mortem examination and inspection of carcasses of cattle to be prepared for human consumption, and for an inspection of the establishment where such slaughtering and preparation is carried on. The act exempts from its inspection requirements “animals slaughtered by any farmer on the farm and sold and transported in interstate or foreign commerce” with certain limitations not here material.

The transportation of food products in interstate and foreign commerce and the enactment and enforcement of regulations to the end that nothing may become the subject of such commerce which is unwholesome, unhealthy or diseased, is within the power of Congress. *Hipolite Egg Company v. United States*, 220 U. S. 45. When Congress prescribes concerning any branch of commerce within its sphere of control its regulations are paramount and render nugatory state statutes covering the same ground. The power of the state must yield to the exercise of that delegated to the United States. It is only the silence of Congress which clothes with validity state laws concerning subjects in that jurisdictional zone, within the power reserved to the states, and at the same time within the enumer-

ated powers of the federal government. *Adams Express Company v. Croninger*, 226 U. S. 491-506; *Northern Pacific Railway v. Washington*, 222 U. S. 370; *Mendon v. New York, New Haven & Hartford Railroad*, 223 U. S. 1-55; *Chicago, Rock Island & Pacific Railway v. Hardwick Farmers Elevator Company*, 226 U. S. 426, 435; *Yazoo & Mississippi Valley Railroad v. Greenwood Grocery Company*, 227 U. S. 1. The Federal Act governs the inspection of all cattle, both alive and dead, prepared for interstate transportation in a slaughtering and similar establishment; but it exempts the individual farmer preparing carcasses of cattle for such transportation. Is this exemption to be interpreted as a determination that such product of the farmer shall be absolutely free in interstate commerce, or is it merely a declaration that, until further action is taken, the subject is outside the scope of the act? It seems to us that the act must be interpreted as having the latter effect. We reach this conclusion on authority and if not controlled by that, on reason. It has been said that "It should never be held that Congress intends to supersede or by its legislation suspend the exercise of the police power of the states, even when it may do so, unless the purpose to effect that result is clearly manifested." *Reid v. Colorado*, 187 U. S. 137, 148. In *Reid v. Colorado* the alleged conflict was presented between a federal act which covered the driving on foot or transporting between states and territories "of any live stock known to be affected with any contagious, infectious or communicable disease" and a state statute which prohibited the bringing into Colorado of cattle from designated parts of Texas without such cattle having been held at some place north of the 36th parallel of north latitude for ninety days and without having procured from a state officer a certificate that the cattle were free from all contagious and infectious disease and had not been exposed to any such disease within ninety days prior thereto. It was held that the state statute did not cover the same ground as the act of Congress, and was not inconsistent with it. The ground of the decision was that the prohibition by the Federal Act from interstate commerce of cattle known to be diseased did not prevent a state from regulating by reasonable inspection laws the introduction within its borders of cattle not known to be diseased. Knowledge by the person transporting the cattle of their diseased condition was the test established by the Federal Act, while under the state statute knowledge as to the actual condition of the cattle was of no consequence. This principle is controlling of the case at

bar. Congress did not include the farmer within the purview of its inspection in his preparation of food products for interstate commerce, but expressly exempted him. It did not say, however, that he should be immune from valid police regulations by the several states. It went no further than to say that the Federal Act did not apply to him. That left the farmer just where he would have been if no Federal Act had been passed. He is on the same footing as the cattleman in *Reid v. Colorado ubi supra*, who had no knowledge as to the freedom from disease of his cattle.

But if the case at bar is not within the express authority of *Reid v. Colorado*, we think on reason the same conclusion must be reached. The protection of the public health manifestly is within the police power of the state. *Commonwealth v. Wheeler*, 205 Mass. 384; *Pittsburg & Southern Coal Company v. Louisiana*, 156 U. S. 590-599. The federal act does not assert expressly nor imply by fair intendment that cattle slaughtered by a farmer are more healthy or less liable to disease than those at a slaughtering establishment. It would be difficult to state any ground on which such a distinction could stand. An inference may be drawn from the federal act that the farmer and retail dealer, so far as concerned their personal preparation of cattle for interstate commerce, were almost negligible. But whatever may have been the motive of Congress, the rational interpretation of the language used is that it omitted from its provisions the farmer, but did not determine that he was to have special protection. The state statute does not conflict in any respect with the federal act, but expressly recognizes whatever may be done under it, and gives it the full effect required by the federal constitution.

Second.—Independently of the Federal Act, is the Massachusetts statute invalid? The principle in the light of which the constitutionality of all legislation, state as well as national, must be considered, is that "the presumption is in favor of its validity and that the court will not declare it to be a violation of the fundamental principles of our government and for that reason void, unless its invalidity is established beyond reasonable doubt." *Bigelow, C. J.*, in *Commonwealth v. People's Five Cents Savings Bank*, 5 Allen, 428, 432. This rule has been followed by the United States Supreme Court in passing upon state statutes. In *Atkin v. Kansas*, 191 U. S. 207, it was said at page 223, "Legislative enactments should be recognized by the courts as embodying the will of the people, unless they

are plainly and palpably beyond all question in violation of the fundamental law of the constitution."

The basis of attack against the constitutionality of this act is that it is an attempt to regulate interstate commerce. The state may enact laws and pass regulations for the preservation or promotion of health, within its borders, which have any reasonable relation to that object, and are not plain invasions of rights secured by fundamental Federal Law. But it may not, under pretence of protecting health, pass laws which in their essence or in their necessary and natural operation constitute a prohibition of or a direct burden upon foreign or interstate commerce.

The principle is established by numerous decisions of the United States Supreme Court that a state "has the right to legislate for the safety or welfare of its people, and that this right is not taken from it because of the exclusive right of congress to regulate interstate commerce, except in cases where the attempted exercise of authority by the Legislature is in conflict with an act of congress or is an attempt to regulate interstate commerce." *McLean v. Denver & Rio Grande Railroad*, 203 U. S. 38, 50, and cases there cited.

A state law, although apparently for the protection of the public health, will be scrutinized as to its results in actual practice to ascertain its essential characteristics, and will not be upheld merely because of its declared purpose. A statute which really operates as an undiscriminating exclusion of the products of other states will not be sustained because under the guise of a health statute. If it is in fact a regulation of interstate commerce in its primary application, then it is invalid regardless of its dress or designation. *Railroad Company v. Husen*, 95 U. S. 465; *Minnesota v. Barber*, 136 U. S. 313. *Brimmer v. Rebman*, 138 U. S. 78, and *Voigt v. Wright*, 141 U. S. 62, are illustrations of nominal health laws, which in substance were found to be inhibitions upon the use of products of other states. Nor is it of consequence that the state law is not prohibitory in its nature, provided its effect is to discriminate against the products of other states and in favor of its own. *Commonwealth v. Caldwell*, 190 Mass. 355; *Darnell & Son v. Memphis*, 208 U. S. 113, and cases there reviewed. *American Steel & Wire Company v. Speed*, 192 U. S. 500; *Western Union Telegraph Company v. Kansas*, 216 U. S. 1. There is, however, a large class of state laws which have been upheld as valid police regulations, although incidentally they bear upon interstate commerce. If such statutes

are a genuine exercise of the police power, are general in their operation, and have a rational connection with the end to be accomplished of protecting and promoting the public health, they will be sustained, even though they may affect or burden interstate commerce in some respects. See cases collected in *Commonwealth v. People's Express Company*, 201 Mass. 564, at page 578; *Chicago, Rock Island & Pacific Railway v. Arkansas*, 219 U. S. 453.

In the light of these established doctrines, Statute 1912, chapter 248, section 1, must be examined. It is plain that it relates exclusively to carcasses of cattle, sheep or swine, slaughtered outside the state. To this extent it appears to be discriminatory and to apply to interstate commerce. But it is in truth only one paragraph of a comprehensive code touching the general subject of meat for food. See Revised Laws, chapter 56, sections 70 to 76, chapter 75, sections 99 to 108, chapter 90, and many acts in amendment thereof which need not be enumerated. The import of all these statutes, considered as a whole, is to regulate in considerable detail the cleanliness of the slaughter house, the inspection of all animals intended for food and of their carcasses at the time of slaughter, and the stamping thereof as a guaranty of healthfulness. They cover within the realm of the state such inspection with as great minuteness as do the federal acts the same field touching interstate and foreign commerce. It is plain that when Statute 1912, chapter 248, is read in connection with this general code, it is merely intended to assure to the people of this Commonwealth something like the same freedom from diseased meat for food coming from other states, which is required by the federal act for those branches of interstate commerce over which in this respect the power of Congress has been exerted. The whole body of statute law of the Commonwealth touching that subject manifests a purpose to be complementary to the federal inspection law, and giving it full effect in the domain covered by it, to provide similar inspection for all other meat for food, both that slaughtered here and that which may come from other states without federal inspection.

It is plain, under *Reid v. Colorado*, 187 U. S. 137, that a quarantine station might be established at the state line and reasonable inspection required there before such food product could be admitted. Chapter 248 does not go so far as this. It accepts at face value such inspection as may be required by the law of the state where the slaughtering took place, whatever may be its details.

The circumstance that the legislation affects only property to be sent out of the state or to be received into the state, and thus relates wholly to interstate commerce, is not decisive. A law requiring inspection of hides to be sent out of the state was held to have such relation to the protection of property against theft or fraud as to be valid in *McLean v. Denver & Rio Grande Railroad*, 203 U. S. 38. The converse sustaining the validity of laws requiring inspection of cattle brought into the state was held in *Reid v. Colorado*, 187 U. S. 137, and in *Asbell v. Kansas*, 209 U. S. 251. It is not necessary to inquire whether the provision of chapter 248, section 1, as to the size of the letters and other details of the stamp are valid, provided the stamping is done as required by the law of the state where the slaughtering occurred, and we make no intimation about it. If that be treated as invalid provided the local law is followed, it is so subsidiary a part of the statute as not to invalidate the whole. It is separable from the rest, and the Legislature would probably have enacted the remaining portions of the statute, if the constitutionality of this part had been doubtful. *Mutual Loan Company v. Martel*, 200 Mass. 482, 487. The main purpose of the act is to obtain assurance on the face of the product that it has been inspected under such circumstances as may show that there is nothing dangerous to the public health in its use.

It fairly may be inferred from the federal acts and our own statutes touching the subject that it generally is believed that inspection of this sort, in order to be of value, must be made before or at the time of slaughtering, and that such inspection as is practicable at a later time after viscera and hide have been removed would fail to reveal the unhealthy or diseased condition of the animal which make its carcass unfit for food. If this inference be sound and the belief rests upon a foundation of truth, it follows that the only way in which the public health can be protected is by inspection at or before the time of slaughter, an inspection impossible in any jurisdiction save where that takes place. Unless statutes like the one now under consideration are valid, there is no way by which the people of a state can protect themselves against noxious food of this sort. We cannot believe that this is the result of the dual system of government under which we live. It may be urged that as thus interpreted the statute operates in such a way as to prohibit the introduction into this Commonwealth of meat food slaughtered by the farmer from a state in which no general inspection law like our own has been enacted. It

may be assumed perhaps that a federal inspector may be available for purposes of inspection, even in such states. But however that may be, the right to interstate commerce is not absolute and unqualified. It is subject to reasonable police regulations in the interest of the public health. The statute does not prohibit the introduction into this Commonwealth of all carcasses of cattle for food. It merely inhibits the sale of those which do not bear some sign or badge of healthfulness made by an inspection at a time and under circumstances when such inspection is efficacious for the detection of disease. There is nothing in the record to indicate, and it certainly cannot be assumed as matter of common knowledge, that inspection potent to discover diseased conditions can be made at any time later than the slaughtering. The real question is whether this is a reasonable regulation fairly adapted to accomplish a result having a direct bearing upon the public health. If it is, the fact that the particular carcass was healthy is of no consequence. *Commonwealth v. Wheeler*, 205 Mass. 384.

The validity of the statute is sustained by the principles declared in recent decisions. *Reid v. Colorado*, 187 U. S. 137, has been adverted to already. It was approved and its scope amplified in *Asbell v. Kansas*, 209 Mass. 251, where a Kansas statute was upheld which forbade the transportation into that state of cattle from any point south of it, except for immediate slaughter, which had not been passed as healthy by the proper state official or by inspectors of the federal bureau of animal industry. There was considered in *Silz v. Hesterberg*, 211 U. S. 31, a New York statute which prohibited under penalty the possession of game during the closed season, ten months in length, for taking game in its own territory. This statute was held to be valid and enforceable against an importer of game lawfully captured in Russia and consigned to Silz in New York, even though a proper system of inspection would have distinguished the Russian black cock from any domestic game bird. In *Savage v. Jones*, 225 U. S. 501, it was held after an elaborate review of authorities that a state statute regulating the sale and requiring formula of the ingredients of a food for stock was within the police power, although it required statements to be made by manufacturers in other states. *Purity Extract Company v. Lynch*, 226 U. S. 192, sustained the validity of a state statute which prohibited the sale within its limits of a harmless beverage which contained a trifling percentage of malt. The same result was reached as to statutes similar in kind in *Standard Stock Food Company v. Wright*, 225 U. S.

540; Patapsco Guano Company *v.* North Carolina, 171 U. S. 345, 361; Missouri, Kansas & Texas Railway *v.* Haber, 169 U. S. 613; Heath & Milligan Manufacturing Company *v.* Worst, 207 U. S. 338; Rasmussen *v.* Idaho, 181 U. S. 198; Smith *v.* St. Louis & South Western Railway, 181 U. S. 248.

In principle the present statute is indistinguishable from those considered in these cases, and it is governed by the rules there announced. A statute like the one at bar in its operation was upheld in Borden's Milk Company *v.* Board of Health, 81 N. J. L. 218. The contentions of the defendant seem less strong than those advanced in behalf of the importer in *Silz v. Hesterberg*, 211 U. S. 31. The statute is plainly distinguishable in essential particulars from that discussed in *Opinion of Justices*, 211 Mass. 605. The conclusion is that Statute 1912, chapter 248, is a police regulation which has "real relation to the suitable protection of the people of the state, and is reasonable in its requirements" and hence is not invalid, although incidentally it affects interstate commerce, and it does not conflict with any legislation enacted by Congress. *Savage v. Jones*, 225 U. S. 501, 525.

Exceptions overruled.

D. V. McISAAC, *Assistant District Attorney,*
for Commonwealth.

W. F. KIMBALL AND E. W. BANCROFT,
for Defendant.

SUMMARY OF VITAL STATISTICS FOR THE MONTH OF OCTOBER, 1913.

Boston had 900 deaths in October, 1913, compared with 936 for October of last year, and a death rate of 14.41 against 15.31 for October, 1912. Deaths of nonresidents numbered 118 against 131 a year ago. Deducting deaths of nonresidents the corrected death rate for October, 1913, was 12.52 against 13.16 for October, 1912.

Of deaths from reportable diseases the principal decrease was: Measles, 4; and the principal increases were tuberculosis (all forms), 9; typhoid fever, 5; and scarlet fever, 4.

Other important differences were as follows:

October, 1913, decreases compared with October, 1912:

"Other diseases"	41
Pneumonia	40

October, 1913, increases compared with October, 1912:

Organic heart diseases, Bright's disease and nephritis	16
Apoplexy and softening of the brain	10
Appendicitis and typhilitis	9

Ward 11 again had the lowest death rate, 7.28, and Ward 13 the highest, 21.90. There were 20 less deaths under one year than in October, 1912, 22 less under 5 years, and 37 less over 60.

Total deaths under one year numbered 177, which is 18 less than the average number for October for the preceding five years. Of these 177 deaths, 66 were due to premature birth, congenital debility, malformations and other diseases peculiar to early infancy; 61 to diarrhea and enteritis, 19 to pneumonia and broncho-pneumonia; 9 to reportable diseases and 22 to other causes.

Of deaths under one year Ward 6 had the largest number, 13, and Ward 13 came next with 12. One hundred and twenty-three were over two weeks old and of these 94 were bottle-fed.

Total deaths for the first ten months of 1913 numbered 9,862 against 9,707 for the corresponding period of last year, giving death rates respectively of 16.10 and 16.18.

Total deaths under 1 year for the same period numbered 1,822 this year against 1,880 last year.

GENERAL STATISTICS.

Population, Ward Area, Persons to Acre, and Rates.

	Land Area in Acres.	Population, 1910 Census.	Persons to Acre of Land. (Using Census Population.)	Population, Estimated, July 1, 1913.†	STILLBIRTHS EXCLUDED.		
					Death Rates, 1912. (Population, Estimated.)‡	Birth Rates, 1911. (Population, Estimated.)‡	Death Rates, 1912 of Children Under One Year, Per 1,000 Births, 1911.
* Boston.....	27,674	686,092	24.8	735,399	16.17	25.99	119.35
Wards 1.....	1,188	29,676	24.9	32,439	13.05	24.90	104.58
2.....	357	28,812	80.7	30,676	17.11	33.37	120.81
3.....	332	15,339	46.2	15,667	15.29	26.84	106.02
4.....	301	13,294	44.1	13,808	18.02	25.50	148.26
5.....	207	12,811	61.9	12,914	16.69	24.28	118.59
6.....	293	35,758	122.0	39,492	16.18	48.81	100.33
7.....	394	14,913	37.9	14,483	20.05	26.57	94.39
8.....	171	32,430	189.6	33,479	12.07	33.21	70.64
9.....	186	26,427	141.5	29,214	15.13	27.40	166.24
10.....	394	25,320	64.3	26,277	11.86	10.51	114.81
11.....	663	27,444	41.4	30,738	9.69	14.22	63.73
12.....	235	24,294	103.4	25,948	14.98	14.57	181.82
13.....	611	21,561	35.3	21,501	17.24	31.11	117.91
14.....	405	23,584	58.2	24,527	14.44	24.14	115.92
15.....	277	21,216	76.6	21,803	14.80	20.25	119.82
16.....	564	25,633	45.6	28,033	12.75	24.23	110.42
17.....	460	26,426	57.4	27,793	15.49	25.65	117.22
18.....	220	22,735	103.3	23,133	17.08	25.08	99.30
19.....	760	31,714	41.7	33,332	13.77	22.77	111.41
20.....	1,716	55,720	32.5	64,723	12.97	20.33	158.90
21.....	640	30,511	20.5	33,085	13.54	17.53	85.14
22.....	760	29,975	38.1	31,403	12.50	20.55	100.48
23.....	7,617	30,668	4.0	33,423	12.13	19.93	94.94
24.....	3,252	37,749	11.6	41,695	12.63	23.73	103.11
25.....	2,740	26,575	9.7	29,661	11.95	24.73	96.21
26.....	2,869	15,507	5.4	16,152	12.29	29.59	107.30

* Hyde Park was annexed to Boston January 1, 1912, and became Ward 26. Under "Boston," in the above table, Hyde Park statistics are included.

† Population estimated by arithmetical method, using the censuses of 1905 and 1910.

‡ An infant asylum is located in this ward.

October. General Summary.

* Population estimated by arithmetical method, using the censuses of 1905 and 1910.
† Nonresidents not included.

Total number (stillbirths excluded)		900		NATIVITY.	
SEX.					
Males	482			United States	549
Females	418			Ireland	134
CONDITION.				England and Wales	24
Single	408			Scotland	6
Married	314			Germany	16
Widowed	171			Canada	79
Divorced	4			Italy	21
Unknown	3			Russia and Poland	34
COLOR.				Sweden and Norway	14
White	869			France	—
Black (negro or mixed)	30			Other countries	15
Chinese	1			Unknown	8
Deaths of children:				NATIVITY OF MOTHERS.	
Under one year	177			United States	265
Under two years	206			Ireland	269
Under five years	233			England and Wales	30
Stillbirths during the month,	64			Scotland	14
				Germany	21
				Canada	77
				Italy	49
				Russia and Poland	60
				Sweden and Norway	13
				France	1
				Other countries	27
				Unknown	74

VITAL STATISTICS.

October, 1913.

Mortality by

Abridged List Class Number.	CAUSES OF DEATH.	TOTALS.		Under 1 Year.	1 Year.	2 Years.	3 Years.	4 Years.	Under 5 Years.	5 to 9 Years.	10 to 14 Years.	15 to 19 Years.
		1913.	1912.									
	Total, all causes..... {1913 1912	900 936	..... .....	177 197	29 30	12 12	7 10	8 6	233 255	16 16	19 13	14 14
1	Typhoid fever.....	14	9	.....	.....	.....	.....	.....	.....	1	1	.....
3	Malarial fever.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
4	Smallpox.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
5	Measles.....	.....	4	.....	.....	.....	.....	.....	.....	.....	.....	.....
6	Scarlet fever.....	4	.....	.....	1	1	.....	1	3	.....	.....	.....
7	Whooping cough.....	6	5	4	1	1	.....	.....	6	.....	.....	.....
8	Diphtheria and croup.....	5	6	1	2	.....	.....	.....	3	.....	2	.....
9	Influenza.....	3	2	.....	.....	.....	.....	.....	.....	.....	.....	.....
11	Cholera nostras.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
12	Other epidemic diseases.....	2	3	.....	.....	.....	.....	.....	.....	.....	.....	.....
13	Tuberculosis of the lungs.....	85	81	.....	2	.....	1	.....	3	1	1	6
14	Tuberculous meningitis.....	6	6	2	3	.....	.....	.....	5	1	.....	.....
15	Other forms of tuberculosis.....	9	4	2	1	1	1	.....	5	3	.....	.....
16	Cancer, malignant tumor.....	79	65	.....	.....	.....	.....	.....	.....	.....	.....	.....
17	Simple meningitis (except cerebro- spinal meningitis).....	5	4	1	.....	.....	.....	.....	1	1	1	.....
17a	Cerebro-spinal meningitis.....	1	1	.....	.....	1	.....	.....	1	.....	.....	.....
18	Apoplexy and softening of the brain.....	54	44	.....	.....	.....	.....	.....	.....	.....	.....	.....
19	Organic heart diseases.....	113	111	.....	.....	.....	.....	.....	.....	.....	1	.....
20	Acute bronchitis.....	2	4	1	.....	.....	.....	.....	1	.....	.....	.....
21	Chronic bronchitis.....	4	1	1	.....	.....	.....	1	2	.....	.....	.....
22	Pneumonia (except broncho-pneu- monia).....	38	78	6	3	1	1	.....	11	1	2	.....
22a	Broncho-pneumonia.....	33	32	13	4	1	.....	.....	18	.....	.....	.....
23	Other respiratory diseases.....	9	7	2	.....	1	.....	.....	3	.....	.....	.....
24	Diseases of the stomach (cancer ex- cepted).....	9	3	2	.....	1	.....	1	4	.....	.....	.....
25	Diarrhea and enteritis (under two years).....	70	75	61	9	.....	.....	.....	70	.....	.....	.....
26	Appendicitis and typhlitis.....	18	9	.....	.....	.....	1	2	3	.....	3	1
27	Hernia, intestinal obstruction.....	6	9	1	.....	.....	.....	.....	1	1	.....	.....
28	Cirrhosis of liver.....	6	9	.....	.....	.....	.....	.....	.....	.....	.....	.....
29	Bright's disease and nephritis.....	60	46	.....	.....	.....	.....	.....	.....	1	.....	.....
30	Diseases of women (not cancer)...	3	9	.....	.....	.....	.....	.....	.....	.....	.....	.....
31	Puerperal septicemia.....	3	3	.....	.....	.....	.....	.....	.....	.....	.....	.....
32	Other puerperal diseases.....	6	5	.....	.....	.....	.....	.....	.....	.....	.....	2
33	Congenital debility and malforma- tions.....	57	58	57	.....	.....	.....	.....	57	.....	.....	.....
34	Old age.....	.....	5	.....	.....	.....	.....	.....	.....	.....	.....	.....
35	Violent deaths.....	53	57	2	1	3	1	1	8	3	3	2
36	Suicide.....	6	9	.....	.....	.....	.....	.....	.....	.....	.....	.....
37	Other diseases.....	128	169	20	2	1	2	2	27	3	5	3
38	Ill-defined causes.....	3	3	1	.....	.....	.....	.....	1	.....	.....	.....

VITAL STATISTICS.

Cause and Age.

October, 1913.

20 to 24 Years.	25 to 29 Years.	30 to 34 Years.	35 to 39 Years.	40 to 44 Years.	45 to 49 Years.	50 to 54 Years.	55 to 59 Years.	60 to 64 Years.	65 to 69 Years.	70 to 74 Years.	75 to 79 Years.	80 to 84 Years.	85 to 89 Years.	90 Years and over.	SEX.		Abridged List Class Number.
															Males.	Females.	
28 31	32 35	40 39	40 56	51 51	53 45	66 62	76 50	47 59	61 60	44 52	32 38	28 35	14 16	6 9	482 485	418 451	
4	2	1	2	2	1										10	4	1
																	3
																	4
																	5
		1														4	6
															1	5	7
															5		8
					1		1							1	2	1	9
																	11
							1		1						2		12
12	7	11	13	13	5	7	4			2					56	29	13
															3	3	14
				1											6	3	15
		1	8	5	12	13	13	10	6	4	2	4	1		24	55	16
									2						3	2	17
															1		17a
1	2	1	1		4	5	6	9	5	10	5	3	1	1	27	27	18
1	6	2	3	5	9	12	13	9	18	11	8	8	6	1	54	59	19
													1			2	20
					1								1		2	2	21
	1	2	1	2	5	1	5	1	3	1	2				21	17	22
	1	1		2		3	1		1	1	1	2		2	21	12	22a
				1	1		2		1					1	7	2	23
1					1		2				1				5	4	24
															33	37	25
2	2	1	1	2		1	1				1				9	9	26
						1	1	1	1						2	4	27
			1		1	1	1	1	1						4	2	28
1		6	1	1	3	11	8	6	9	6	3	2	2		30	30	29
1		1			1											3	30
1		1		1												3	31
	2	1	1													6	32
															36	21	33
																	34
2	1	5	2	4	3	6	7	1	2		2	2			38	15	35
1	1						2		2						5	1	36
1	6	5	5	12	5	5	8	9	9	9	7	7	2		73	55	37
	1		1												2	1	38

VITAL STATISTICS.

October, 1913.

Mortality by

Abridged List Class Number.	CAUSES OF DEATH.	Boston.	WARD RESIDENCE.										
			1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
	All causes.....	900	29	23	17	18	17	41	21	26	25	35	19
	Rates per 1,000 popula- tion.....	<div>1913 14.41 10.53 8.83 12.78 15.35 15.50 12.22 17.07 9.14 10.08 15.68 7.28</div> <div>1912 15.31 11.93 12.13 12.86 18.98 18.28 14.13 21.75 9.94 15.37 12.24 7.13</div>											
1	Typhoid fever.....	14				2		2	1			1	
3	Malarial fever.....												
4	Smallpox.....												
5	Measles.....												
6	Scarlet fever.....	4	1										
7	Whooping cough.....	6					3			1			
8	Diphtheria and croup.....	5		1				1		1			
9	Influenza.....	3	1										
12	Other epidemic diseases.....	2											
13	Tuberculosis of the lungs.....	85	1	5	2	1	1	2	4	2	1	3	2
14	Tuberculous meningitis.....	6			1								
15	Other forms of tuberculosis...	9						1					
16	Cancer, malignant tumor.....	79	3	3		1	2	2		3	3	2	5
17	Simple meningitis (except cerebro-spinal meningitis).	5											1
17a	Cerebro-spinal meningitis.....	1				1							
18	Apoplexy and softening of the brain.....	54	4	2	1	1	1	2	1	1		3	1
19	Organic heart diseases.....	113	3	2		2	3	5	1	7	6	4	2
20	Acute bronchitis.....	2			1								
21	Chronic bronchitis.....	4							1		1		
22	Pneumonia (except broncho- pneumonia).	38	4		2	1	1	4	1	1	1	3	
22a	Broncho-pneumonia.....	33	2	3	1			1	2			2	
23	Other respiratory diseases.....	9						2					
24	Diseases of the stomach (cancer excepted).	9								1			
25	Diarrhea and enteritis (under two years).	70	2		1	2	3	2	2	1	1	1	
26	Appendicitis and typhlitis.....	18									1		1
27	Hernia, intestinal obstruction,	6											
28	Cirrhosis of liver.....	6				1			1				
29	Bright's disease and nephritis..	60	1		2	1	2	3	2	1	1	5	2
30	Diseases of women (not cancer),	3											
31	Puerperal septicemia.....	3						1				1	
32	Other puerperal diseases.....	6				1				1			
33	Congenital debility and mal- formations.	57	1	2	2	1	2	4		2	3	2	1
34	Old age.....												
35	Violent deaths.....	53	2		2	1		2	3	1	3	3	
36	Suicide.....	6										1	
37	Other diseases.....	128	4	5	2	2	1	7	2	3	4	3	4
38	Ill defined causes.....	3										1	
	Total deaths under one year..	177	4	4	5	3	4	13	4	4	4	2	2

Of deaths of nonresidents from typhoid fever, measles, scarlet fever and diphtheria there was one

WARD RESIDENCE.

12.	13.	14.	15.	16.	17.	18.	19.	20.	21.	22.	23.	24.	25.	26.	Boston, Ward Unknown.	Nonresidents.	Unknown.	Abridged List Class Number
36	40	29	26	33	35	25	34	54	35	31	30	40	32	21	1	118	9	....
16.34	21.90	13.92	14.04	13.86	14.83	12.72	12.01	9.82	12.46	11.62	10.57	11.30	12.70	15.31	.....	.....	.....	.....
15.74	13.68	19.92	18.52	7.77	18.93	14.33	12.19	9.89	14.59	8.75	15.19	11.93	9.03	9.60	.....	.....	.....	.....
2	.....	1	.....	.....	.....	1	.....	.....	1	1	1	.....	.....	.....	.....	1	.....	1
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	3
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	4
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	5
.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	1	.....	.....	.....	6
1	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	1	.....	7
.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	8
.....	.....	.....	.....	.....	.....	.....	1	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	9
.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	12
7	3	5	4	.....	6	1	5	4	4	2	3	4	.....	3	.....	7	3	13
.....	1	.....	1	.....	.....	.....	.....	1	.....	.....	.....	1	.....	.....	.....	1	.....	14
.....	.....	.....	.....	.....	1	.....	1	.....	1	.....	.....	.....	.....	1	.....	4	.....	15
.....	2	.....	1	5	1	3	5	7	1	4	6	5	2	1	.....	12	.....	16
.....	.....	.....	.....	1	1	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	1	.....	17
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	17a
4	.....	2	1	2	3	1	1	1	3	2	2	5	2	2	.....	6	.....	18
5	4	2	5	4	3	4	5	8	5	5	3	3	3	4	.....	15	.....	19
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	20
.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	21
.....	2	1	.....	2	3	1	1	2	1	2	1	.....	1	.....	.....	3	.....	22
.....	3	2	.....	1	.....	1	.....	4	2	.....	3	1	1	1	1	2	.....	22a
1	.....	1	.....	2	.....	.....	.....	.....	1	.....	.....	.....	1	.....	.....	1	.....	23
.....	2	.....	.....	.....	1	.....	.....	1	1	.....	.....	.....	1	.....	.....	2	.....	24
1	4	4	3	2	3	1	4	2	4	6	.....	1	.....	3	.....	13	4	25
2	.....	.....	1	1	.....	.....	2	1	.....	.....	1	3	1	.....	.....	4	.....	26
.....	.....	1	.....	.....	1	1	.....	1	.....	.....	1	.....	.....	.....	.....	1	.....	27
1	1	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	1	.....	.....	.....	28
4	3	2	2	2	3	1	.....	6	2	.....	.....	3	4	3	.....	5	.....	29
.....	.....	.....	.....	1	.....	.....	1	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	30
.....	1	.....	.....	.....	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	31
.....	1	.....	.....	1	.....	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	1	.....	32
2	2	.....	3	1	1	.....	3	4	2	.....	1	3	4	.....	.....	11	.....	33
.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	34
2	.....	3	.....	.....	2	3	1	3	2	.....	.....	1	2	1	.....	16	.....	35
1	.....	.....	.....	2	1	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	36
3	7	5	4	6	5	6	3	8	4	7	7	8	8	.....	.....	9	1	37
.....	1	.....	.....	.....	.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	38
4	12	8	6	4	5	3	9	9	7	6	1	8	6	4	.....	31	5	.....

death from typhoid fever and one death from diphtheria among cases brought to Boston for treatment.

VITAL STATISTICS.

October, 1913, Infant Mortality.

Detailed List Class Number.	CAUSES OF DEATH.	OCTOBER TOTALS, UNDER 1 YEAR.		Under 1 Year.											AGED 2 WEEKS AND OVER.		Nonresidents.	
		1913.	1912.	Under 1 Day.	1 to 2 Days.	2 to 3 Days.	3 Days to 1 Week.	1 to 2 Weeks.	2 to 3 Weeks.	3 Weeks to 1 Month.	1 to 2 Months.	2 to 3 Months.	3 to 6 Months.	6 to 9 Months.	9 to 12 Months.	Breast Fed.		Bottle Fed.
	Total.....	177	197	26	4	7	12	5	5	5	22	15	33	24	19	29	94	31
	Male.....	105	106	15	4	2	6	4	1	4	15	9	19	13	13	19	55	18
	Female.....	72	91	11	...	5	6	1	4	1	7	6	14	11	6	10	39	13
	White.....	175	195	26	4	7	12	5	5	5	22	15	33	24	17	29	92	31
	Colored.....	2	2	...	...	...	...	...	...	...	...	...	...	...	2	...	2	...
1	Typhoid fever.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
5	Smallpox.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
6	Measles.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
7	Scarlet fever.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
8	Whooping cough.....	4	3	...	...	...	...	...	...	...	...	...	1	2	1	...	4	1
9	Diphtheria and croup.....	1	...	...	...	...	...	...	...	...	...	...	...	1	...	...	1	...
10	Influenza.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
14	Dysentery.....	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
18	Erysipelas.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
19	Other epidemic diseases.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
20	Pus-infection and septicemia.....	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
24	Tetanus.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
28	Tuberculosis of the lungs.....	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
29	Acute miliary tuberculosis.....	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
30	Tuberculous meningitis.....	2	...	...	...	...	...	...	...	...	...	...	...	1	1	1	1	1
31 35	Other forms of tuberculosis.....	2	1	...	...	...	...	...	...	...	...	1	...	1	...	...	2	1
36	Ricketts.....	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
37	Syphilis.....	5	3	...	...	...	...	...	1	1	...	...	1	2	...	2	3	...
38	Gonococcus infection.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
61	Simple meningitis.....	1	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1	...
61a	Cerebro-spinal fever.....	...	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
63a	Acute poliomyelitis.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
71	Convulsions.....	2	2	...	...	1	...	...	...	...	...	...	...	1	...	1	...	...
76	Diseases of the ears.....	1	1	...	...	...	...	...	...	...	...	...	1	...	...	...	1	1
79	Organic diseases of the heart.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
89	Acute bronchitis.....	1	2	...	...	...	...	...	...	...	1	...	...	...	...	...	1	...
91	Broncho-pneumonia.....	13	16	...	1	...	...	...	...	1	3	...	1	3	4	6	6	...
92	Pneumonia.....	6	12	...	...	...	...	2	...	...	2	...	...	2	...	1	3	...
93	Pleurisy.....	1	...	...	...	...	...	...	...	...	...	...	1	...	...	...	1	...
103	Other diseases of stomach.....	2	...	...	...	...	1	...	...	...	...	...	...	...	1	1	...	...

VITAL STATISTICS.
October, 1913, Infant Mortality.—Concluded.

Detailed List Class Number.	CAUSES OF DEATH.	OCTOBER TOTALS, UNDER 1 YEAR.		Under 1 Day.	1 to 2 Days.	2 to 3 Days.	3 Days to 1 Week.	1 to 2 Weeks.	2 to 3 Weeks.	3 Weeks to 1 Month.	1 to 2 Months.	2 to 3 Months.	3 to 6 Months.	6 to 9 Months.	9 to 12 Months.	AGED 2 WEEKS AND OVER.		Nonresidents.
		1913.	1912.													Breast Fed.	Bottle Fed.	
104	Diarrhea and enteritis.....	61	68	...	...	...	...	3	2	6	12	20	11	7	11	50	13	
108	Appendicitis and typhlitis...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
109	Hernias,intestinal obstruction,	1	1	...	...	...	...	...	...	...	...	1	...	...	...	...	1	...
117	Simple peritonitis.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
119	Acute nephritis.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
143	Furuncle.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
144	Acute abscess.....	1	...	...	...	...	...	...	...	...	...	...	1	...	...	...	1	...
145	Other diseases of skin, etc.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
150a	Hydrocephalus.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
b	Congenital malformations of heart.	7	11	2	...	1	2	...	1	...	1	...	...	...	...	2	...	1
c	Other malformations.....	2	5	...	...	...	...	...	...	...	1	...	...	...	1	...	2	1
151a	Premature birth.....	34	27	16	2	3	6	3	...	1	3	...	...	...	...	1	3	6
b	Congenital debility.....	14	14	1	...	...	2	...	...	...	4	1	4	1	1	1	10	3
152a	Injuries at birth.....	8	9	6	1	1	...	...	...	...	...	...	...	...	...	...	...	1
b	Other causes peculiar to early infancy.	1	6	1	...	...	...	...	...	...	...	...	...	...	...	...	...	...
167	Burns (conflagrations excepted).	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
168	Absorption of deleterious gases,	1	1	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...
172	Traumatism by fall.....	1	...	...	...	...	...	...	...	...	...	...	1	...	...	...	1	1
182)	Homicide.....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
184)	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
187)	Ill-defined diseases.....	1	2	...	...	...	...	...	...	...	1	...	...	...	...	1	...	...
189)	Other causes.....	4	7	...	...	1	...	...	...	...	...	...	2	...	1	1	2	1
	Breast fed *.....	29	24	...	...	...	...	1	3	5	4	3	6	7	29	...	2	...
	Bottle fed *.....	94	117	...	...	...	...	4	2	17	11	30	18	12	...	94	22	...
	Nonresidents.....	31	21	4	1	...	2	...	...	...	4	4	7	5	4	2	22	31

* Aged two weeks and over.

Additional Deaths for Other Months.

May, 1913.—1 male; other external violence; white; aged 35 years; condition unknown; residence unknown; birthplace unknown; birthplace of mother unknown.

July, 1913.—1 male; cerebral hemorrhage; white; aged 55 years; condition unknown; residence unknown; birthplace unknown; birthplace of mother unknown.

1 male; traumatism by fall; white; aged 65 years; condition unknown; nonresident; birthplace unknown; birthplace of mother unknown.

1 male; traumatism by fall; white; aged 40 years; single; residence Ward 24; birthplace unknown; birthplace of mother unknown.

1 male; traumatism by other crushing, etc.; white; aged 40 years; condition unknown; residence unknown; birthplace unknown; birthplace of mother unknown.

1 male; traumatism by other crushing, etc.; black; aged 39 years; single; residence Ward 12; birthplace unknown; birthplace of mother unknown.

Aug., 1913.—1 female; alcoholism; white; aged 35 years; single; residence unknown; born in United States; birthplace of mother unknown.

Additional Deaths for Other Months.—*Concluded.*

- Sept., 1913.—1 male; tuberculosis; white; aged 45 years; condition unknown; residence Ward 5; birthplace unknown; birthplace of mother unknown.
- 1 female; alcoholism; white; aged 45 years; condition unknown; residence unknown; birthplace unknown; birthplace of mother unknown.
- 1 male; alcoholism; white; aged 45 years; condition unknown; residence Ward 7; birthplace unknown; birthplace of mother unknown.
- 1 female; alcoholism; white; aged 35 years; married; residence Ward 10; birthplace unknown; birthplace of mother unknown.
- 1 male; alcoholism; white; aged 29 years; single; residence Ward 9; birthplace unknown; birthplace of mother unknown.
- 1 male; organic diseases of the heart; white; aged 56 years; widowed; residence Ward 12; birthplace unknown; birthplace of mother unknown.
- 1 male; organic diseases of the heart; white; aged 51 years; condition unknown; nonresident; birthplace unknown; birthplace of mother unknown.
- 1 female; Bright's disease; white; aged 50 years; condition unknown; residence Ward 8; birthplace unknown; birthplace of mother unknown.
- 1 female; Bright's disease; white; aged 65 years; condition unknown; residence unknown; birthplace unknown; birthplace of mother unknown.
- 1 male; traumatism by fall; white; aged 57 years; single; nonresident; born in Ireland; birthplace of mother unknown.
- 1 male; traumatism by fall; white; aged 22 years; single; residence Ward 20; born in United States; mother born in United States.
- 1 male; suicide by jumping from high place; white; aged 22 years; condition unknown; nonresident; born in Italy; birthplace of mother unknown.
- 1 male; accidental drowning; white; aged 50 years; condition unknown; residence unknown; birthplace unknown; birthplace of mother unknown.
- 1 male; other external violence; white; aged 62 years; married; residence Ward 16; birthplace England or Wales; birthplace of mother England or Wales.

COMMUNICABLE DISEASES.

DIVISION OF COMMUNICABLE DISEASES, OCTOBER, 1913.

Medical Inspectors.

New cases visited:

Diphtheria:

a. Isolation	87
b. Diagnosis	9

Scarlet fever:

a. Isolation	42
b. Diagnosis	12
c. Release	18

Typhoid fever	109
-------------------------	-----

Typhoid prophylactic given	137
--------------------------------------	-----

Measles.	1
------------------	---

Varicella:

a. Isolation	1
b. Diagnosis	4

Ophthalmia neonatorum	6
---------------------------------	---

Tuberculosis	45
------------------------	----

Whooping cough	2
--------------------------	---

Poliomyelitis	8
-------------------------	---

Deaths investigated	20
-------------------------------	----

Nurses.

New cases visited:

Diphtheria	166
----------------------	-----

Scarlet fever	110
-------------------------	-----

Typhoid fever	112
-------------------------	-----

Whooping cough	44
--------------------------	----

Ophthalmia neonatorum	105
---------------------------------	-----

Measles	69
-------------------	----

Varicella	53
---------------------	----

Old cases visited:

Diphtheria	334
----------------------	-----

Scarlet fever	341
-------------------------	-----

Typhoid fever	562
-------------------------	-----

Whooping cough	31
--------------------------	----

Ophthalmia neonatorum	267
---------------------------------	-----

Measles	66
-------------------	----

Varicella	42
---------------------	----

Release cultures taken for diphtheria	133
Vaccinations performed	35
Certificates granted	12

Forcible Removals.

Diphtheria	1
Scarlet fever	4
Typhoid fever	2

Disinfections.

Diphtheria	150
Scarlet fever	71
Phthisis	178

DIVISION OF

October, 1913. **Cases Reported.**

WARDS.	Anterior Polomyelitis.	Actinomycosis.	Asiatic Cholera.	Bubonic Plague.	Cerebro-spinal Meningitis.	Diphtheria.	Glanders.	Leprosy.	Malaria.	Malignant Pustule.	Measles.	Mumps.	Ophthalmia Neonatorum.
1.....						12					7	2	3
2.....	1				1	5					6	1	10
3.....						5							4
4.....						2					1		1
5.....						3					1		1
6.....						14					2	4	9
7.....						1					1		5
8.....						8					4	51	19
9.....						3					25	1	4
10.....						7							
11.....					1	1						2	2
12.....						7							9
13.....						5					1		9
14.....						3							3
15.....						8					2	1	2
16.....	1				1	3			1		4	2	1
17.....	1								1		1	1	3
18.....						6					2	2	3
19.....	2					10					1		1
20.....						13					4	2	2
21.....						6					3	1	
22.....						5					4	4	2
23.....	1					10			1		1		2
24.....	1					9							
25.....	1					8					1	3	
26.....						14							
Total.....	8				3	168			3		71	77	95
Unknown.....													
Nonresidents.....						9			1				10
Grand total.....	8				3	177			4		71	77	105
Corresponding month last year..	5				3	111			4		149	29	106

Included in the nonresidents were the following cases brought to Boston

COMMUNICABLE DISEASES.

Cases Reported.

October, 1913.

Scarlet Fever.	Smallpox.	Tetanus.	Trachoma.	Trichinosis.	Tuberculosis (Pulmonary and Miliary).	Tuberculosis (Other Forms).	Typhoid Fever.	Typhus Fever.	Varicella.	Whooping Cough.	Yellow Fever.	WARDS.
6	1	.....	6	.....	6	.....	7	.....	.....	1
3	1	.....	12	.....	7	.....	2	.....	.....	2
2	7	1	3	.....	1	.....	.....	3
6	3	.....	13	.....	.....	1	.....	4
.....	4	.....	2	.....	1	.....	.....	5
4	12	1	22	.....	6	6	.....	6
1	1	.....	17	.....	1	.....	.....	1	.....	7
7	13	1	2	.....	2	5	.....	8
3	1	.....	10	.....	12	.....	.....	1	.....	9
2	2	.....	9	.....	3	.....	1	.....	.....	10
.....	4	.....	.....	.....	6	1	.....	11
3	15	1	4	.....	1	4	.....	12
9	1	.....	11	1	.....	.....	2	3	.....	13
2	2	.....	4	.....	7	.....	.....	14
2	9	4	2	.....	.....	1	.....	15
2	8	.....	2	.....	2	1	.....	16
4	11	1	2	.....	1	4	.....	17
1	5	1	2	.....	1	2	.....	18
7	15	2	1	.....	10	4	.....	19
6	1	.....	9	2	5	.....	7	11	.....	20
5	6	.....	2	.....	.....	1	.....	21
4	5	.....	5	.....	3	1	.....	22
5	2	.....	2	.....	3	.....	.....	23
5	11	1	2	.....	1	2	.....	24
12	9	1	2	.....	.....	.....	.....	25
2	3	3	.....	.....	1	.....	.....	26
103	8	.....	218	20	106	.....	65	49	.....	Total
.....	1	.....	.....	.....	.....	Unknown
17	5	.....	7	2	8	.....	.....	.....	.....	Nonresidents
120	13	.....	225	22	115	.....	65	49	.....	Grand total
73	1	.....	276	14	71	.....	55	90	.....	Corresponding month last year.

for treatment: Diphtheria, 9; scarlet fever, 17; typhoid fever, 8.

DIVISION OF CHILD HYGIENE.— OCTOBER, 1913.

1. Pre-Natal and Post-Natal Work.

1. *Pre-Natal.*

Number cases	50	Breast-fed	11
Number visits	75	Bottle-fed	0
Babies born	12	Both feedings	0

Mothers attended as follows:

Family physician	10	Midwife	1
Hospital	1		

Results:

Mortality, mothers	0	Mortality, babies at birth	1
------------------------------	---	--------------------------------------	---

Defective conditions noted as follows:

Miscarriage	1	Varicose veins	5
Eclampsia	0	Miscellaneous	0
Oedema	1		

2. *Post-Natal.*

Number cases	1,040	Breast-fed	982
Number visits	3,938	Bottle-fed	39
		Both feedings	27

Visits were made to 87 homes, where babies were not seen, on account of wrong address, removal, etc.

Defective conditions noted as follows:

Ophthalmia	28	Skin disease	8
Improper feeding	58	Miscellaneous	2

Recommendations:

Family physician	34	Milk stations	65
Hospital	40		

2. Medical Inspection of Schools.

Number inspections made	19,148
Number physical examinations made	22,601
Number visits made to homes	68

There were 2,151 pupils excluded from school during the month, for the following causes:

Diphtheria	3	Pediculosis	1,412
Scarlet fever	2	Acute or purulent conjunc-	
Measles	2	tivitis	19
Chicken pox	17	Ringworm	37
Whooping cough	19	Scabies	58
Mumps	32	Impetigo	97
Pulmonary tuberculosis	1	Favus	6
Acute tonsilitis	79	Molluscum Contagiosum	1
Influenza	2	Miscellaneous	363
Gonorrhea	1		

There were 22,336 cases of noncontagious disease found, subdivided as follows:

Diseases of oral and respiratory tract	4,532
Diseases of the ear	64
Diseases of the eye	412
Diseases of the skin	1,094
Dental caries	8,703
Miscellaneous	7,531

3. Physical Examination of Licensed Minors.

There were 1,336 girls and 1,198 boys between the ages of 14 and 16 years examined during the month. Six hundred and ninety-seven were found without defects and 1,837 with defects, as follows:

Hearing	2	Pulmonary disease	3
Eyesight	218	Cardiac disease	26
Defective nasal breathing	5	Orthopedic defects	5
Hypertrophied tonsils	101	Skin	2
Defective teeth	1,740	Miscellaneous	4
Defective palate	2		

Certificates were granted at this time to 2,534 applicants.

BACTERIOLOGICAL LABORATORY.

DIPHTHERIA:		GONORRHEA:	
Positive for diagnosis...	136	Positive.....	36
Positive for release.....	84	Negative.....	113
Negative for diagnosis...	878	Unsatisfactory.....	0— 149
Negative for release.....	239	GONORRHEAL OPTHALMIA:	
"No growth" cultures...	2— 1,339	Positive.....	2
TUBERCULOSIS:		Negative.....	62
Positive.....	87	Unsatisfactory.....	0— 64
Negative.....	320	OTHER EXAMINATIONS:	
Unsatisfactory.....	0— 407	*Positive.....	5
TYPHOID:		Negative.....	84
Positive.....	49	Unsatisfactory.....	0— 89
Negative.....	203	BACTERIOLOGICAL MILK	
Atypical.....	24— 276	EXAMINATIONS.....	692—
		Total.....	3,016

* K-L Vir. typhoid conradi, malaria, paratyphoids, typhoid feces and urine.

INSPECTION OF MILK, VINEGAR, ETC.

Examination as to Statute Requirements.

Samples examined, milk from stores.....	600
" " milk from wagons.....	632
" " milk brought in by citizens.....	32
" " milk for bacteriological examination.....	692
" " vinegar.....	62
" " butter and cheese.....	39
" " ice cream.....	62
Total samples.....	2,119

INSPECTION OF DAIRIES.

Satisfactory * on first inspection.....	38
Satisfactory on later inspection.....	166
	204
Unsatisfactory on first inspection.....	16
Unsatisfactory on later inspection.....	12
	28
Total number of inspections.....	232
Dairies having milk rooms.....	107
Dairies without milk rooms.....	97
Number of cattle inspected.....	2,506
Number of dairies prohibited shipping milk to Boston, because of insanitary conditions of premises.....	9

* "Satisfactory" means having a score of at least 45 per cent by the government score card.

FOOD INSPECTION DIVISION.

Cattle inspected.....	954	Cattle condemned (3 whole)....	795 lbs.
Calves inspected.....	339	Cattle condemned (127 parts)....	3,842 lbs.
Sheep inspected.....	—	Calves condemned (1 whole)....	32 lbs.
Swine inspected.....	6,654	Swine condemned (4 whole)....	189 lbs.
		Swine condemned (322 parts) ..	3,619 lbs.

INSPECTION OF PROVISIONS.—ARTICLES CONDEMNED.

Meats.		Miscellaneous.	
Veal (immature).....	31 lbs.	Fish (tainted).....	18 lbs.
Veal (tainted).....	58 lbs.	Misc. fruit (decayed).....	1 bush.
Beef (tainted).....	234 lbs.	Misc. vegetables (decayed)....	2 bush.
Pork (tainted).....	881 lbs.		
Poultry (tainted).....	170 lbs.		
Bear meat (tainted).....	125 lbs.		

New reports.....	* 609
Plumbing defects referred to Sanitary Division.....	32
Defects remedied.....	47
Milk applications approved.....	98

* October 22, 1913, to November 1, 1913.

SANITARY INSPECTION DIVISION.

New reports.....	2,254
Reinspections.....	5,272
New tenement house reports.....	822
Nuisances reported.....	7,477
Legal notices.....	487
Court cases.....	6
Fines.....	\$40
Stable permit granted.....	1
Stable permit hearings.....	3
Dump permits granted.....	3

QUARANTINE.

Vessels inspected at quarantine.....	59
Total immigrants arriving in Boston.....	10,000

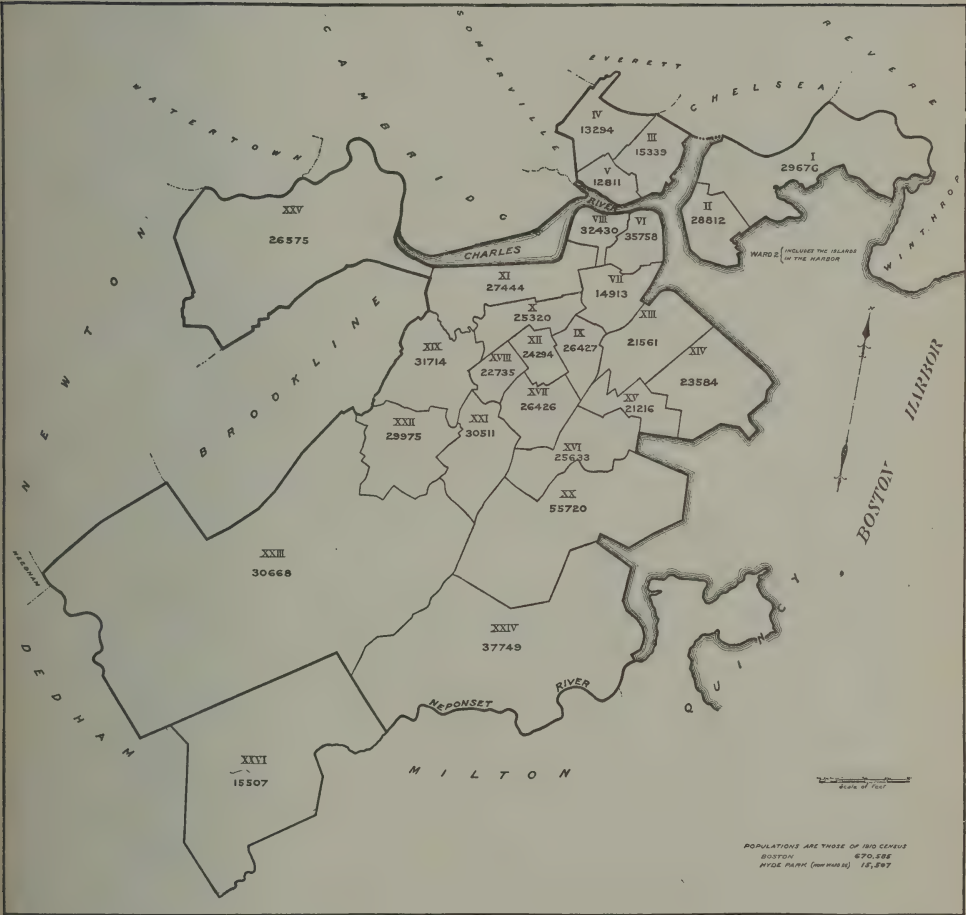
MONTHLY METEOROLOGICAL SUMMARY.
 Taken at Weather Bureau, Boston, October, 1913.

DAY.	TEMPERATURE, DEGREES FAHRENHEIT.			Relative Humidity.	Daily Precipitation.	Actual Hours Sun- shine.	WIND.		
	Maximum.	Minimum.	Mean.				Average Hourly Velocity. (Miles.)	Maximum Velocity. (Miles.)	Prevailing Direction.
1.....	59	48	54	86	T	2.9	8.2	19	E.
2.....	67	58	62	98	.75	0.7	11.8	24	S. W.
3.....	71	56	64	88	0	9.0	9.0	20	N.
4.....	62	57	60	86	.29	0	13.2	24	N.
5.....	68	57	62	76	0	5.8	10.5	19	N. E.
6.....	61	56	58	96	T	0	7.5	14	N.
7.....	63	58	60	98	T	0	5.1	8	N. E.
8.....	65	59	62	98	T	0	4.0	7	E.
9.....	64	59	62	98	T	0	3.2	6	E.
10.....	66	60	63	98	.04	2.7	4.6	8	E.
11.....	62	59	60	97	.07	0	6.1	13	E.
12.....	63	51	57	84	.75	0	8.1	24	N. W.
13.....	64	46	55	71	0	8.7	12.5	28	N. W.
14.....	49	35	42	72	.74	0	18.7	33	N. W.
15.....	59	45	52	90	.28	1.5	16.2	27	N.
16.....	57	55	56	90	.51	0	16.6	26	N.
17.....	63	54	58	76	T	0.8	7.6	15	N.
18.....	60	54	57	88	0	2.2	5.5	11	E.
19.....	63	55	59	94	.31	0.5	7.1	16	S. W.
20.....	68	55	62	91	1.13	0	18.8	42	S.
21.....	59	45	52	52	0	9.4	17.6	34	S. W.
22.....	51	39	45	66	0	10.8	7.8	14	N. W.
23.....	55	38	46	77	0	9.1	7.0	17	S.
24.....	62	50	56	94	.05	0	5.5	10	E.
25.....	68	59	64	94	.42	0	6.2	13	S. W.
26.....	61	49	55	98	.70	0	12.7	27	N. E.
27.....	68	50	59	84	0	10.5	8.5	14	W.
28.....	74	53	64	92	T	3.4	8.8	20	S. W.
29.....	63	52	58	71	0	3.1	6.1	12	W.
30.....	56	42	49	72	T	5.5	12.2	26	N. W.
31.....	46	31	38	54	T	2.9	12.2	23	N. W.
Totals.....	—	—	—	—	6.04	89.5	—	—	—
Means.....	61.8	51.1	56.5	84.8	0.19	26%	9.3	20th	E.

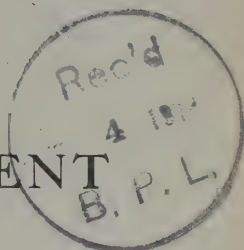
Latitude 42 degrees 21 minutes.

Longitude 71 degrees 4 minutes.

BOSTON WARD MAP.



MONTHLY BULLETIN
OF THE
HEALTH DEPARTMENT
OF THE
CITY OF BOSTON



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ORGANIZATION OF THE HEALTH DEPARTMENT

FRANCIS X. MAHONEY, M. D., *Chairman.*

P. H. MULLOWNEY, M. D. V.

F. H. SLACK, M. D., *Secretary.*

MONTHLY BULLETIN

OF THE

HEALTH DEPARTMENT OF THE CITY OF BOSTON.

All communications relating to this publication should be addressed to
BULLETIN OF THE HEALTH DEPARTMENT, 100 Summer St., Boston.

VOL. 2.

BOSTON, NOVEMBER, 1913.

No. 11.

SUMMARY OF VITAL STATISTICS FOR THE MONTH OF NOVEMBER, 1913.

Boston had 829 deaths in November, 1913, compared with 934 for November of last year, and a death rate of 13.72 against 15.78 for November, 1912. Deaths of nonresidents numbered 114 for November of each year. Deducting deaths of nonresidents the corrected death rate for November, 1913, was 11.83 against 13.86 for November, 1912.

Of deaths from reportable diseases the principal decreases were tuberculosis (all forms), 18, and measles, 5; and the principal increases were scarlet fever, 7; diphtheria, 4; and typhoid fever, 2.

Other important differences were as follows:

November, 1913, decreases compared with November, 1912:

"Other diseases"	36
Pneumonia	17
Cancer	9
Apoplexy and softening of the brain	9
Diarrhea and enteritis (under 2 years)	8
Suicide	8
Ill defined.	8

November, 1913, increases compared with November, 1912:

Organic heart diseases, Bright's disease and nephritis	6
Other puerperal diseases	5

Ward 1 again had the lowest death rate, 5.25, and Ward 5 the highest, 22.61. There were 26 less deaths under one year than in November, 1912, 35 less under 5 years, and 4 less over 60.

Total deaths under one year numbered 120, which is 29 less than the average number for November for the preceding five years. Of these 120 deaths, 51 were due to premature birth, congenital debility, malformations and other diseases peculiar to early infancy; 25 to diarrhea and enteritis; 17 to pneumonia and broncho-pneumonia; 9 to reportable diseases and 18 to all other causes.

Of deaths under one year Ward 6 had the largest number, 10. Seventy-six were over two weeks old and of these 58 were bottle-fed.

Total deaths for the first eleven months of 1913 numbered 10,695 against 10,641 for the corresponding period of last year, giving death rates respectively of 15.89 and 16.15.

Total deaths under 1 year for the same period numbered 1,942 this year against 2,026 last year.

VITAL STATISTICS.

GENERAL STATISTICS.

Population, Ward Area, Persons to Acre, and Rates.

	Land Area in Acres.	Population, 1910 Census.	Persons to Acre of Land. (Using Census Population.)	Population, Estimated, July 1, 1913.†	STILLBIRTHS EXCLUDED.		
					Death Rates, 1912. (Population Estimated.)†	Birth Rates, 1911. (Population Estimated.)†	Death Rates, 1912, of Children Under One Year, Per 1,000 Births, 1911.
* Boston.....	27,674	686,092	24.8	735,399	16.17	25.99	119.35
Wards 1.....	1,188	29,676	24.9	32,439	13.05	24.90	104.58
2.....	357	28,812	80.7	30,676	17.11	33.37	120.81
3.....	332	15,339	46.2	15,667	15.29	26.84	106.02
4.....	301	13,294	44.1	13,808	18.02	25.50	148.26
5.....	207	12,811	61.9	12,914	16.69	24.28	118.59
6.....	293	35,758	122.0	39,492	16.18	48.81	100.33
7.....	394	14,913	37.9	14,483	20.05	26.57	94.39
8.....	171	32,430	189.6	33,479	12.07	33.21	70.64
9.....	186	26,427	141.5	29,214	15.13	27.40	106.24
10.....	394	25,320	64.3	26,277	11.86	10.51	114.81
11.....	663	27,444	41.4	30,738	9.69	14.22	63.73
12.....	235	24,294	103.4	25,948	14.98	14.57	181.82
13.....	611	21,561	35.3	21,501	17.24	31.11	117.91
14.....	405	23,584	58.2	24,527	14.44	24.14	115.92
15.....	277	21,216	76.6	21,803	14.80	20.25	119.82
16.....	564	25,633	45.6	28,033	12.75	24.23	110.42
17.....	460	26,426	57.4	27,793	15.49	25.65	117.22
18.....	220	22,735	103.3	23,133	17.08	25.08	99.30
19.....	760	31,714	41.7	33,332	13.77	22.77	111.41
20.....	1,716	55,720	32.5	64,723	12.97	20.33	†158.90
21.....	640	30,511	20.5	33,085	13.54	17.53	85.14
22.....	760	29,975	38.1	31,403	12.50	20.55	100.48
23.....	7,617	30,668	4.0	33,423	12.13	19.93	94.94
24.....	3,252	37,749	11.6	41,695	12.63	23.73	103.11
25.....	2,740	26,575	9.7	29,661	11.95	24.73	96.21
26.....	2,869	15,507	5.4	16,152	12.29	29.59	107.30

* Hyde Park was annexed to Boston January 1, 1912, and became Ward 26. Under "Boston," in the above table, Hyde Park statistics are included.

† Population estimated by arithmetical method, using the censuses of 1905 and 1910.

‡ An infant asylum is located in this ward.

VITAL STATISTICS.

November. General Summary.

	1913.	1912.
Total deaths	829	934
Population, estimated*	735,399	720,031
Death rate per 1,000	13.72	15.78
Deaths of nonresidents	114	114
Corrected death rate†	11.83	13.86

*Population estimated by arithmetical method, using the censuses of 1905 and 1910.

† Nonresidents not included.

November, 1913. Statement of Deaths.

Total number (stillbirths ex- cluded)		NATIVITY.	
	829	United States	497
		Ireland	151
		England and Wales	14
		Scotland	6
		Germany	14
		Canada	52
		Italy	24
		Russia and Poland	29
		Sweden and Norway	17
		France	2
		Other countries	11
		Unknown	12
SEX.		NATIVITY OF MOTHERS.	
Males	421	United States	224
Females	408	Ireland	264
		England and Wales	23
		Scotland	9
		Germany	20
		Canada	68
		Italy	52
		Russia and Poland	52
		Sweden and Norway	20
		France	2
		Other countries	19
		Unknown	76
CONDITION.			
Single	334		
Married	300		
Widowed	184		
Divorced	4		
Unknown	7		
COLOR.			
White	802		
Black (negro or mixed)	25		
Chinese	2		
Deaths of children:			
Under one year	120		
Under two years	139		
Under five years	164		
Stillbirths during the month,	59		

VITAL STATISTICS.

November, 1913.

Mortality by

Abridged List Class Number.	CAUSES OF DEATH.	TOTALS.		Under 1 Year.	1 Year.	2 Years.	3 Years.	4 Years.	Under 5 Years.	5 to 9 Years.	10 to 14 Years.	15 to 19 Years.
		1913.	1912.									
	Total, all causes..... {1913 1912	829 934	..... .....	120 146	19 32	13 10	7 6	5 5	164 199	16 10	12 13	14 23
1	Typhoid fever.....	6	4	.....	.....	.....	.....	.....	.....	2	.....	.....
3	Malarial fever.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
4	Smallpox.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
5	Measles.....	1	6	.....	.....	1	.....	.....	1	.....	.....	.....
6	Scarlet fever.....	7	.....	.....	.....	1	1	3	5	2	.....	.....
7	Whooping cough.....	5	5	1	3	.....	1	.....	5	.....	.....	.....
8	Diphtheria and croup.....	9	5	2	1	2	1	1	7	2	.....	.....
9	Influenza.....	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
11	Cholera nostras.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
12	Other epidemic diseases.....	1	3	.....	.....	.....	.....	.....	.....	.....	.....	.....
13	Tuberculosis of the lungs.....	68	86	2	.....	2	.....	.....	4	1	1	5
14	Tuberculous meningitis.....	9	9	3	1	1	1	.....	6	2	1	.....
15	Other forms of tuberculosis.....	4	4	1	.....	.....	.....	.....	1	.....	.....	.....
16	Cancer, malignant tumor.....	66	75	.....	.....	.....	.....	.....	.....	.....	.....	.....
17	Simple meningitis (except cerebro-spinal meningitis).	3	3	.....	1	.....	.....	.....	1	.....	1	.....
17a	Cerebro-spinal meningitis.....	2	2	.....	.....	1	.....	.....	1	.....	.....	.....
18	Apoplexy and softening of the brain,	49	58	1	.....	.....	.....	.....	1	.....	.....	.....
19	Organic heart diseases.....	134	130	1	.....	.....	.....	.....	1	1	.....	2
20	Acute bronchitis.....	5	9	4	.....	.....	.....	.....	4	.....	.....	.....
21	Chronic bronchitis.....	5	8	.....	.....	.....	.....	.....	.....	.....	.....	.....
22	Pneumonia (except broncho-pneumonia).	55	72	5	7	.....	.....	.....	12	1	1	1
22a	Broncho-pneumonia.....	31	31	12	2	4	.....	.....	18	.....	.....	.....
23	Other respiratory diseases.....	7	4	1	.....	.....	.....	.....	1	.....	1	.....
24	Diseases of the stomach (cancer excepted).	6	7	1	.....	.....	1	.....	2	.....	.....	.....
25	Diarrhea and enteritis (under two years).	26	34	25	1	.....	.....	.....	26	.....	.....	.....
26	Appendicitis and typhlitis.....	9	5	.....	.....	.....	.....	.....	.....	.....	3	1
27	Hernia, intestinal obstruction.....	9	9	.....	.....	.....	.....	1	1	.....	.....	.....
28	Cirrhosis of liver.....	9	9	.....	.....	.....	.....	.....	.....	.....	.....	.....
29	Bright's disease and nephritis.....	64	62	.....	.....	.....	.....	.....	.....	.....	.....	.....
30	Diseases of women (not cancer)...	2	2	.....	.....	.....	.....	.....	.....	.....	.....	.....
31	Puerperal septicemia.....	5	4	.....	.....	.....	.....	.....	.....	.....	.....	.....
32	Other puerperal diseases.....	11	6	.....	.....	.....	.....	.....	.....	.....	.....	2
33	Congenital debility and malformations.	40	41	39	.....	.....	.....	.....	39	.....	.....	1
34	Old age.....	.....	3	.....	.....	.....	.....	.....	.....	.....	.....	.....
35	Violent deaths.....	54	60	1	1	.....	1	.....	3	3	4	2
36	Suicide.....	5	13	.....	.....	.....	.....	.....	.....	.....	.....	.....
37	Other diseases.....	121	157	21	2	1	1	.....	25	2	.....	.....
38	Ill-defined causes.....	.....	8	.....	.....	.....	.....	.....	.....	.....	.....	.....

20 to 24 Years.	25 to 29 Years.	30 to 34 Years.	35 to 39 Years.	40 to 44 Years.	45 to 49 Years.	50 to 54 Years.	55 to 59 Years.	60 to 64 Years.	65 to 69 Years.	70 to 74 Years.	75 to 79 Years.	80 to 84 Years.	85 to 89 Years.	90 Years and over.	SEX.		Abridged List Class Number.
															Males.	Females.	
24 29	35 37	26 39	45 51	40 59	50 53	59 66	64 71	71 78	51 68	58 58	52 44	26 23	14 8	8 5	421 504	408 430	
1	1	1				1									4	2	1
																	3
																	4
															1		5
															4	3	6
															3	2	7
															5	4	8
									1							1	9
								1									11
								2	1		2				1		12
9	8	5	12	3	7	3	5	2							36	32	13
															4	5	14
				1			2								3	1	15
		1	5	4	7	10	7	7	7	7	7	1	2	1	19	47	16
	1														3		17
			1												1	1	17a
			1	1	4	4	4	7	7	8	5	5	1	1	20	29	18
1	3	2	5	4	9	12	19	25	12	11	15	4	6	2	67	67	19
										1					3	2	20
								1				1	2	1	3	2	21
1		3	3	6	4	6	5	1	4	3	2	1		1	24	31	22
		1	1	1		1	1	1	3	2		2			17	14	22a
				1		1				1	1	1			4	3	23
			1			1	1	1							2	4	24
															17	9	25
2	1			1			1								4	5	26
			1		3	1				3					4	5	27
					2	1	3	1	1	1					6	3	28
2	1	2	2	5	4	6	5	9	6	9	8	4	1		35	29	29
	1	1														2	30
	3		1	1												5	31
1	2	4		2												11	32
															21	19	33
																	34
5	7	2	2	6	4	1	4	3		3	1	3		1	37	17	35
	1	1	1			1		1							5		36
2	6	3	9	4	6	10	7	11	9	9	11	4	2	1	68	53	37
																	38

VITAL STATISTICS.

November, 1913.

Mortality by

Abridged List Class Number.	CAUSES OF DEATH.	Boston.	WARD RESIDENCE.										
			1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
	All causes.....	829	14	30	13	19	24	39	22	23	31	29	23
	Rates per 1,000 popula- tion.....	{1913 13.72 1912 15.78	5.25 16.18	11.90 13.34	10.10 16.42	16.74 15.15	22.61 17.94	12.02 16.19	18.48 17.48	8.36 9.54	12.91 17.17	13.43 10.77	9.10 11.47
1	Typhoid fever.....	6				1		2					
3	Malarial fever.....												
4	Smallpox.....												
5	Measles.....	1						1					
6	Scarlet fever.....	7						1		1		1	
7	Whooping cough.....	5		1								1	1
8	Diphtheria and croup.....	9						1		1			
9	Influenza.....	1					1						
12	Other epidemic diseases.....	1											
13	Tuberculosis of the lungs.....	68	2	2	2	3	6	1	2	1	7	2	1
14	Tuberculous meningitis.....	9	1					2					
15	Other forms of tuberculosis....	4											
16	Cancer, malignant tumor.....	66		2	1	1	1	1		3	3	2	3
17	Simple meningitis (except cerebro-spinal meningitis).	3											
17a	Cerebro-spinal meningitis.....	2											
18	Apoplexy and softening of the brain.....	49				2	2		1			1	6
19	Organic heart diseases.....	134	2	7	4	3	5	4	4	3	5	2	5
20	Acute bronchitis.....	5		1				2					
21	Chronic bronchitis.....	5			1								
22	Pneumonia (except broncho- pneumonia).	55	2	1	2	1	1	3	6	3	5	2	
22a	Broncho-pneumonia.....	31	1	2				6	2		1		1
23	Other respiratory diseases.....	7						2					
24	Diseases of the stomach (cancer excepted).	6					1						
25	Diarrhea and enteritis (under two years).	26		2				3				1	
26	Appendicitis and typhlitis.....	9				1							
27	Hernia, intestinal obstruction,	9		1									1
28	Cirrhosis of liver.....	9		1			1		1	1			
29	Bright's disease and nephritis..	64	1	1		3	2	1	1	2	2	6	2
30	Diseases of women (not cancer),	2											
31	Puerperal septicemia.....	5								1			
32	Other puerperal diseases.....	11	1	1	1		1				1		
33	Congenital debility and mal- formations.	40	2	4	1	1	1	3	1	5	1	2	
34	Old age.....												
35	Violent deaths.....	54	1	1	1	1	1	2	1			2	
36	Suicide.....	5				1							
37	Other diseases.....	121	1	3		1	1	4	3	2	6	7	3
38	Ill defined causes.....												
	Total deaths under one year..	120	4	8	1	1	3	10	3	6	6	4	

Of deaths of nonresidents from typhoid fever, measles, scarlet fever and diphtheria the following

WARD RESIDENCE																Boston, Ward Unknown.	Nonresidents.	Unknown.	Abridged List Class Number
12.	13.	14.	15.	16.	17.	18.	19.	20.	21.	22.	23.	24.	25.	26.					
28	29	23	17	24	35	22	30	57	33	25	26	52	27	14	1	114	5	....
13.13	16.41	11.41	9.49	10.42	15.32	11.57	10.95	10.71	12.14	9.69	9.46	15.17	11.08	10.55	....	....	....	....
10.52	17.53	15.56	15.76	14.27	17.34	16.39	12.97	12.18	10.18	14.54	9.34	11.43	13.57	12.97	....	....	....	....
....	....	....	....	....	....	....	....	1	....	....	....	....	....	....	....	2	....	1
....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	3
....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	4
....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	5
....	1	....	....	....	....	....	....	2	....	....	....	1	....	....	....	....	....	6
....	....	....	....	....	....	....	....	....	1	....	....	....	....	1	....	....	....	7
....	2	....	....	....	1	....	....	....	....	....	....	....	....	2	....	2	....	8
....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	9
....	....	....	....	....	....	....	....	....	....	....	....	....	....	1	....	....	....	12
2	2	....	2	....	1	3	3	8	4	1	2	6	3	....	....	2	....	13
1	....	....	....	....	....	1	1	1	....	1	1	....	....	....	....	....	....	14
....	....	....	....	....	....	....	....	1	....	1	....	1	....	....	....	1	....	15
3	1	1	....	4	1	1	1	4	2	3	3	8	1	1	....	15	....	16
....	....	....	....	....	....	....	....	1	....	....	....	....	1	....	....	1	....	17
....	....	....	....	....	....	....	....	....	....	1	....	1	....	....	....	....	....	17a
3	....	2	2	....	5	2	2	5	3	1	3	3	....	1	....	5	....	18
6	5	7	1	5	5	5	3	12	4	4	8	6	8	3	....	7	1	19
....	....	1	....	....	....	....	....	....	....	....	....	1	....	....	....	....	....	20
....	....	1	....	....	....	....	....	1	....	....	1	1	....	....	....	....	....	21
....	1	4	3	1	3	....	3	3	1	....	....	....	3	....	....	7	....	22
....	4	1	....	....	3	....	3	....	1	1	....	....	1	....	....	4	....	22a
....	1	....	1	....	1	....	....	....	1	....	....	....	....	....	....	1	....	23
1	1	....	1	....	....	....	....	....	....	....	....	....	....	....	....	2	....	24
....	....	1	1	1	....	....	2	1	....	....	....	3	....	....	1	8	2	25
....	....	....	....	1	1	....	....	1	....	1	....	....	....	....	....	4	....	26
2	1	....	....	1	....	1	....	....	....	....	....	1	....	....	....	1	....	27
....	....	....	1	....	1	....	....	1	1	....	1	....	....	....	....	....	....	28
1	....	1	....	2	3	2	3	3	6	5	....	5	2	....	....	8	2	29
....	....	1	1	....	....	....	....	....	....	....	....	....	....	....	....	....	....	30
....	....	....	....	....	....	1	....	1	....	....	....	1	....	....	....	1	....	31
....	1	....	....	....	....	....	....	1	....	....	....	1	....	....	....	3	....	32
2	....	....	2	2	2	....	2	....	2	....	....	1	....	1	....	5	....	33
....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	34
1	5	....	1	3	3	3	1	1	1	1	1	3	2	4	....	14	....	35
....	....	....	....	....	....	....	1	1	....	....	....	....	....	....	....	2	....	36
6	4	3	1	5	5	3	2	9	7	4	7	9	6	....	....	19	....	37
....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	....	38
3	4	3	5	3	4	1	6	5	4	2	3	5	....	1	1	22	2	

occurred among cases brought to Boston for treatment: Diphtheria, 2; typhoid fever, 2.

VITAL STATISTICS.

November, 1913, Infant Mortality.

Detailed List Class Number.	CAUSES OF DEATH.	NOVEMBER TOTALS, UNDER 1 YEAR.		Under 1 Year.												AGED 2 WEEKS AND OVER.		Nonresidents.
		1913.	1912.	Under 1 Day.	1 to 2 Days.	2 to 3 Days.	3 Days to 1 Week.	1 to 2 Weeks.	2 to 3 Weeks.	3 Weeks to 1 Month.	1 to 2 Months.	2 to 3 Months.	3 to 6 Months.	6 to 9 Months.	9 to 12 Months.	Breast Fed.	Bottle Fed.	
	Total.....	120	146	22	2	4	7	9	4	3	15	11	20	13	10	18	58	22
	Male.....	66	85	13	...	1	5	5	2	3	10	8	8	6	5	8	34	13
	Female.....	54	61	9	2	3	2	4	2	...	5	3	12	7	5	10	24	9
	White.....	116	143	21	2	4	7	8	4	3	14	11	20	13	9	21	56	22
	Colored.....	4	3	1	...	...	...	1	...	...	1	...	...	...	1	...	2	...
1	Typhoid fever.....																	
5	Smallpox.....																	
6	Measles.....		1															
7	Scarlet fever.....																	
8	Whooping cough.....	1	2											1			1	...
9	Diphtheria and croup.....	2											1		1		2	2
10	Influenza.....																	
14	Dysentery.....																	
18	Erysipelas.....		1															
19	Other epidemic diseases.....																	
20	Pus-infection and septicemia.....	2												1	1		2	...
24	Tetanus.....																	
28	Tuberculosis of the lungs.....	1	1										1				1	...
29	Acute miliary tuberculosis.....	1											1				1	...
30	Tuberculous meningitis.....	3	3									1		1	1		3	...
31 35	Other forms of tuberculosis.....	1											1				1	1
36	Rickets.....																	
37	Syphilis.....	1	4									1					1	...
38	Gonococcus infection.....																	
61	Simple meningitis.....		1															
61a	Cerebro-spinal fever.....		1															
63a	Acute poliomyelitis.....																	
71	Convulsions.....	1	1	1														1
76	Diseases of the ears.....	1	2										1				1	...
79	Organic diseases of the heart.....	1													1		1	...
89	Acute bronchitis.....	4	4					1		1			2			3		
91	Broncho-pneumonia.....	12	14								3	1	2	2	4	5	7	1
92	Pneumonia.....	5	11									1	3		1	2	3	...
93	Pleurisy.....																	
103	Other diseases of stomach.....	1	2											1		1		...

VITAL STATISTICS.

November, 1913, Infant Mortality.—*Concluded.*

Detailed List Class Number.	CAUSES OF DEATH.	NOVEMBER TOTALS, UNDER 1 YEAR.		Under 1 Day.	1 to 2 Days.	2 to 3 Days.	3 Days to 1 Week.	1 to 2 Weeks.	2 to 3 Weeks.	3 Weeks to 1 Month.	1 to 2 Months.	2 to 3 Months.	3 to 6 Months.	6 to 9 Months.	9 to 12 Months.	AGED 2 WEEKS AND OVER.		Nonresidents.
		1913.	1912.													Breast Fed.	Bottle Fed.	
104	Diarrhea and enteritis.....	25	32	...	...	...	...	...	1	...	8	6	4	5	1	3	22	8
108	Appendicitis and typhlitis ...			...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
109	Hernias,intestinal obstruction,		1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
117	Simple peritonitis.....		1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
119	Acute nephritis.....		2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
143	Furuncle.....			...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
144	Acute abscess.....			...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
145	Other diseases of skin, etc.....			...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
150a	Hydrocephalus.....		2	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
b	Congenital malformations of heart.	4	8	...	...	1	...	1	1	...	1	...	...	...	...	2	...	...
c	Other malformations.....	3	1	...	...	...	...	...	1	1	...	1	...	...	...	...	3	1
151a	Premature birth.....	23	19	12	2	1	2	4	1	...	1	...	...	...	...	1	1	1
b	Congenital debility.....	9	11	...	...	...	2	2	...	...	1	...	3	1	...	...	5	3
152a	Injuries at birth.....	6	9	6	...	...	...	...	...	...	...	...	...	...	...	...	...	...
b	Other causes peculiar to early infancy.	6	5	3	...	1	...	1	...	1	...	...	...	...	...	1	...	1
167	Burns (conflagrations excepted).			...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
168	Absorption of deleterious gases,		1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
172	Traumatism by fall.....	1	...	...	...	...	...	...	...	...	...	...	1	...	...	...	1	1
182|	Homicide.....			...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
184|																		
187|																		
189|	Ill-defined diseases.....		3	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Other causes.....	6	3	...	...	1	3	...	...	...	1	...	...	1	...	...	2	2
	Breast fed *.....	18	30	...	...	...	...	...	1	2	6	...	5	2	2	18	...	...
	Bottle fed *.....	58	68	...	...	...	...	...	3	1	9	11	15	11	8	...	58	18
	Nonresidents.....	22	16	1	...	...	1	2	1	1	3	3	5	3	2	...	18	22

* Aged two weeks and over.

Additional Deaths for Other Months.

Sept., 1913.—1 male; accidental drowning; white; aged 52 years; single; residence unknown; born in Ireland; mother born in Ireland.
 1 female; Bright's disease; white; aged 24 years; single; residence Ward 11; born in Canada; mother born in Canada.
 1 male; alcoholism; white; aged 52 years; widower; residence unknown; born in Ireland; mother born in Ireland.
 Oct., 1913.—1 male; alcoholism; white; aged 50 years; condition unknown; residence Ward 6; birthplace unknown; birthplace of mother unknown.
 1 male; cerebral hemorrhage; white; aged 71 years; condition unknown; residence unknown; born in United States; mother born in England or Wales.
 1 male; absorption of deleterious gases, white; aged 32 years; single; nonresident; born in Canada; mother born in Canada.
 1 male; accidental drowning; white; aged 35 years; condition unknown; residence unknown; birthplace unknown; birthplace of mother unknown.
 1 male; homicide by other means; white; aged 54 years; married; residence Ward 21; born in Canada; mother born in Ireland.

DIVISION OF COMMUNICABLE DISEASES, NOVEMBER, 1913.

Medical Inspectors.

New cases visited:

Diphtheria:

a. Isolation	99
b. Diagnosis	4

Scarlet fever:

a. Isolation	54
b. Diagnosis	9
c. Release	32

Typhoid fever 101

Typhoid prophylactic given 25

Measles 8

Varicella:

a. Isolation	5
b. Diagnosis	4

Ophthalmia neonatorum 5

Tuberculosis 10

Whooping cough 3

Poliomyelitis 10

Deaths investigated 26

Vaccinations performed 7

Certificates granted 5

Nurses.

New cases visited:

Diphtheria	133
Scarlet fever	159
Typhoid fever	55
Whooping cough	28
Ophthalmia neonatorum	106
Measles	50
Varicella	49

Old cases visited:

Diphtheria	276
Scarlet fever	418
Typhoid fever	152
Whooping cough	40
Ophthalmia neonatorum	191

Measles	100
Varicella	36
Release cultures taken for diphtheria	101

Forcible Removals.

Scarlet fever	4
Tuberculosis	1

Disinfections.

Diphtheria	130
Scarlet fever	108
Phthisis	146

November, 1913.

DIVISION OF

Cases Reported.

WARDS.	Anterior Polomyelitis.	Actinomycosis.	Asiatic Cholera.	Bubonic Plague.	Cerebro-spinal Meningitis.	Diphtheria.	Glanders.	Leprosy.	Malaria.	Malignant Pustule.	Measles.	Mumps.	Ophthalmia Neonatorum.
1.....						3					18	6	1
2.....	1					8					16	1	11
3.....						1							3
4.....						3					3	1	4
5.....													1
6.....	1					12					6	5	14
7.....						2							2
8.....						8					8	61	19
9.....						3					9	4	3
10.....						2					1		
11.....												1	5
12.....						9					1		2
13.....						4					2	2	9
14.....						3					1		9
15.....											2	2	3
16.....												3	1
17.....						7					1	4	4
18.....						1					1	3	3
19.....	2					9					2	6	4
20.....						18					3	9	3
21.....						5						4	2
22.....					1	4					4	3	6
23.....						10					2		3
24.....					1	9					3	3	1
25.....						2					3	2	1
26.....						8							1
Total.....	4				2	131					86	120	115
Unknown.....													
Nonresidents.....	3					15					1		
Grand total.....	7				2	146					87	120	115
Corresponding month last year..	3				1	168			1		384	41	96

Included in the nonresidents were the following cases brought

COMMUNICABLE DISEASES.

Cases Reported.

November, 1913.

Scarlet Fever.	Smallpox.	Tetanus.	Trachoma.	Trichinosis.	Tuberculosis (Pulmonary and Miliary).	Tuberculosis (Other Forms).	Typhoid Fever.	Typhus Fever.	Varicella.	Whooping Cough.	Yellow Fever.	WARDS.
13	6	2	3	.....	4	.....	.....	1
5	1	.....	10	.....	3	.....	4	1	.....	2
.....	8	.....	2	.....	6	.....	.....	3
7	7	1	1	.....	1	.....	.....	4
3	3	.....	2	.....	1	.....	.....	5
5	23	2	5	.....	3	9	.....	6
.....	12	1	.....	.....	.....	.....	.....	7
11	1	.....	15	2	2	.....	4	8	.....	8
1	18	.....	2	.....	.....	.....	.....	9
1	11	.....	2	.....	.....	6	.....	10
4	6	.....	.....	.....	1	2	.....	11
20	11	1	1	.....	1	1	.....	12
11	6	.....	.....	.....	2	1	.....	13
12	1	.....	7	.....	3	.....	8	.....	.....	14
.....	7	.....	5	.....	1	.....	.....	15
2	6	1	.....	.....	.....	.....	.....	16
8	10	.....	.....	.....	5	.....	.....	17
5	1	.....	8	.....	1	.....	7	1	.....	18
8	5	.....	2	.....	14	.....	.....	19
4	14	3	2	.....	2	3	.....	20
5	5	.....	2	.....	1	4	.....	21
4	8	2	.....	.....	14	.....	.....	22
.....	6	1	1	.....	4	.....	.....	23
14	5	1	2	.....	6	.....	.....	24
18	4	.....	2	.....	5	.....	.....	25
1	1	15	.....	.....	.....	.....	.....	26
162	4	.....	222	32	43	.....	94	36	.....	Total
.....	Unknown
9	1	.....	5	2	.....	.....	.....	4	.....	Nonresidents
171	5	.....	227	34	43	.....	94	40	.....	Grand total
124	1	.....	5	.....	261	22	30	.....	125	118	.....	Corresponding month last year.

to Boston for treatment: Diphtheria, 15; scarlet fever, 9.

DIVISION OF CHILD HYGIENE.—NOVEMBER, 1913.

1. Pre-Natal and Post-Natal Work.

1. *Pre-Natal.*

Number cases	46	Breast-fed	7
Number visits	52	Bottle-fed	0
Babies born	8	Both feedings	1

Mothers attended as follows:

Family physician	6	Midwife	1
Hospital	1		

Results:

Mortality, mothers	0	Mortality, babies at birth	0
------------------------------	---	--------------------------------------	---

Defective conditions noted as follows:

Miscarriage	0	Varicose veins	2
Eclampsia	0	Miscellaneous	0
Oedema	1		

2. *Post-Natal.*

Number cases	1,046	Breast-fed	894
Number visits	1,701	Bottle-fed	67
		Both feedings	85

Visits were made to 72 homes, where babies were not seen, on account of wrong address, removal, etc.

Defective conditions noted as follows:

Ophthalmia	26	Skin disease	2
Improper feeding	20	Miscellaneous	2

Recommendations:

Family physician	32	Milk stations	79
Hospital	30		

2. Medical Inspection of Schools.

Number inspections made	15,144
Number physical examinations made	19,709
Number visits made to homes	95

There were 1,562 pupils excluded from school during the month, for the following causes:

Diphtheria	1	Pediculosis	770
Scarlet fever	1	Acute or purulent conjunctivitis	20
German measles	3	Ringworm	19
Chicken pox	31	Scabies	27
Whooping cough	7	Impetigo	97
Mumps	78	Favus	5
Pulmonary tuberculosis	3	Molluscum contagiosum	1
Acute tonsilitis	109	Miscellaneous	388
Influenza	2		

There were 19,768 cases of noncontagious disease found, subdivided as follows:

Diseases of oral and respiratory tract	4,289
Diseases of the ear	55
Diseases of the eye	389
Diseases of the skin	1,141
Dental caries	7,099
Miscellaneous	6,795

3. Physical Examination of Licensed Minors.

There were 501 girls and 628 boys between the ages of 14 and 16 years examined during the month. Three hundred and twenty-seven were found without defects and 802 with defects, as follows:

Hearing	2	Pulmonary disease	1
Eyesight	95	Cardiac disease	5
Mental deficiency	0	Nervous disease	0
Defective nasal breathing	4	Orthopedic defects	2
Hypertrophied tonsils	28	Skin	2
Defective teeth	728	Rickets	0
Defective palate	0	Malnutrition	0
Cervical glands	0	Miscellaneous	0

Certificates were granted to 1,129 applicants.

BACTERIOLOGICAL LABORATORY.

DIPHTHERIA:		GONORRHEA:	
Positive for diagnosis...	99	Positive.....	40
Positive for release.....	43	Negative.....	114
Negative for diagnosis.....	1,005	Unsatisfactory.....	0— 154
Negative for release.....	224	GONORRHEAL OPHTHALMIA:	
"No growth" cultures.....	9—1,380	Positive.....	2
TUBERCULOSIS:		Negative.....	66
Positive.....	67	Unsatisfactory.....	0— 68
Negative.....	334	OTHER EXAMINATIONS:	
Unsatisfactory.....	0— 401	*Positive.....	4
TYPHOID:		Negative.....	106
Positive.....	30	Unsatisfactory.....	1— 111
Negative.....	161	BACTERIOLOGICAL MILK	
Atypical.....	8	EXAMINATIONS.....	507— 507
Unsatisfactory.....	12— 201	ICE CREAM EXAMINA-	
GLANDERS: Strauss. C. F. Ag.		TIONS.....	40
Positive.....	0	Total.....	2,862
Negative.....	0		
Unsatisfactory.....	0		
Atypical.....	0— 0		

* K-L Vir. (2), typhoid conradi (1), malaria (24), G-U. T. B. (8), paratyphoid (12), typhoid feces and urine (2), cholera (62).

INSPECTION OF MILK, VINEGAR, ETC.

Examination as to Statute Requirements.

Samples examined, milk from stores.....	460
" " milk from wagons.....	660
" " milk brought in by citizens.....	23
" " milk for bacteriological examination.....	507
" " bacteriological ice cream.....	40
" " vinegar.....	59
" " butter and cheese.....	48
" " ice cream.....	33
Total samples.....	1,830

INSPECTION OF DAIRIES.

Satisfactory * on first inspection.....	198
Satisfactory on later inspection.....	224
	422
Unsatisfactory on first inspection.....	134
Unsatisfactory on later inspection.....	53
	187
Total number of inspections.....	609
Dairies having milk rooms.....	298
Dairies without milk rooms.....	311
Number of cows inspected.....	6,104
Number of dairies prohibited shipping milk to Boston, because of insanitary conditions of premises.....	19

* "Satisfactory" means having a score of at least 45 per cent by the government score card.

INSPECTED AT BRIGHTON ABATTOIR.

Cattle inspected.....	718	Cattle condemned (107 parts)...	3,085 lbs.
Calves inspected.....	399	Cattle condemned (6 whole).....	1,650 lbs.
Sheep inspected.....	—	Calves condemned (2 whole)....	62 lbs.
Swine inspected.....	6,829	Sheep condemned.....	— lbs.
		Swine condemned (7 whole)....	747 lbs.
		Swine condemned (370 parts)...	3,834 lbs.

INSPECTION OF PROVISIONS.—ARTICLES CONDEMNED.

Meats.		Miscellaneous.	
Veal (tainted).....	5 lbs.	Vegetables.....	3½ bush.
Mutton (tainted).....	30 lbs.		
Beef (tainted).....	51 lbs.		
Pork (tainted).....	42 lbs.		
Poultry (tainted).....	23,644 lbs.		
Rabbits (tainted).....	362 lbs.		

New reports.....	570
Plumbing defects referred to Sanitary Division.....	26
Defects remedied.....	70
Milk applications approved.....	119

SANITARY INSPECTION DIVISION.

New reports.....	2,233
Reinspections.....	6,551
New tenement house reports.....	902
Nuisances reported.....	7,858
Legal notices.....	365
Court cases.....	11
Fines.....	\$95
Tenements vacated.....	6
Stable permits granted.....	3
Stable permit hearings.....	4
Stable permits refused.....	1
Dump permits granted.....	6

QUARANTINE.

Vessels inspected at quarantine.....	47
Total immigrants arriving in Boston.....	5,460

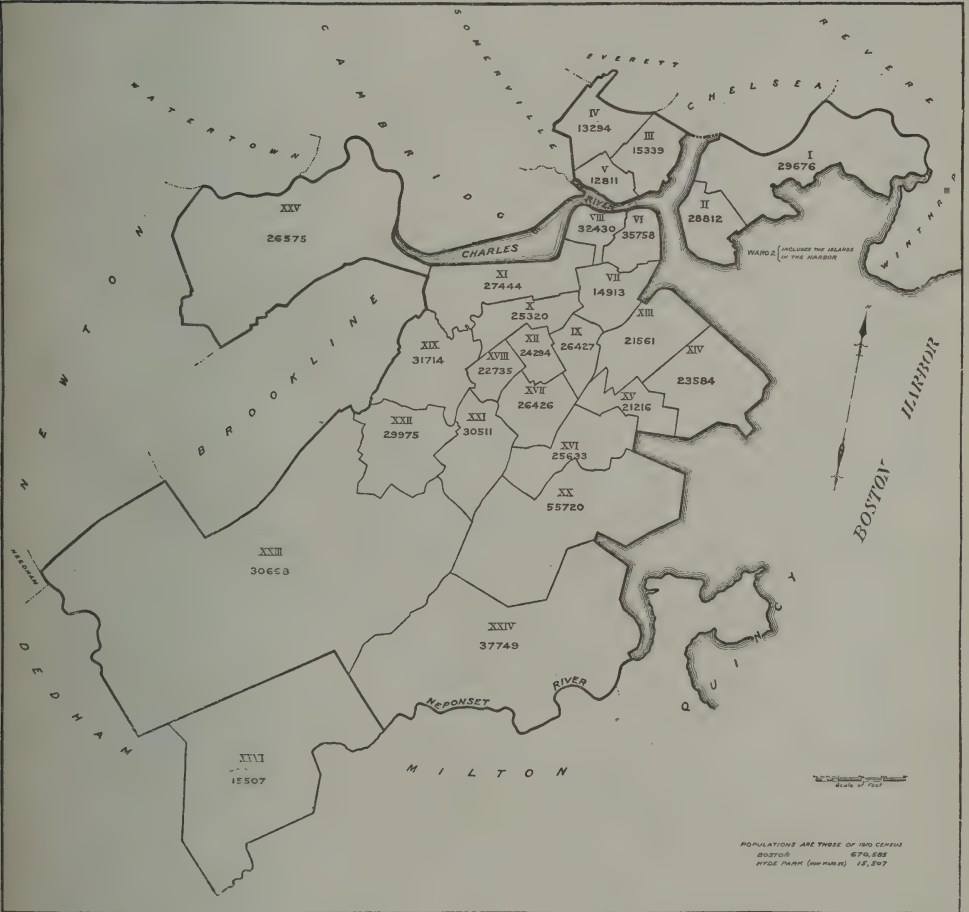
MONTHLY METEOROLOGICAL SUMMARY.
Taken at Weather Bureau, Boston, November, 1913.

DAY.	TEMPERATURE, DEGREES FAHRENHEIT.			Relative Humidity.	Daily Precipitation.	Actual Hours Sun- shine.	WIND.		
	Maximum.	Minimum.	Mean.				Average Hourly Velocity. (Miles.)	Maximum Velocity. (Miles.)	Prevailing Direction.
1.....	50	30	40	54	0	10.4	14.4	27	W.
2.....	54	42	48	64	0	6.5	7.1	14	N. W.
3.....	55	41	48	68	0	0.5	7.8	17	S.
4.....	56	42	49	70	.01	4.8	15.9	30	W.
5.....	50	35	42	48	0	10.2	12.3	25	N. W.
6.....	68	39	54	53	0	10.2	9.0	14	W.
7.....	70	44	57	69	0	9.5	8.0	14	S. W.
8.....	58	46	52	95	T	2.0	6.5	13	E.
9.....	60	54	57	94	.43	0	16.5	30	S. E.
10.....	55	37	46	64	0	2.0	15.2	29	S. W.
11.....	44	32	38	68	0	8.2	11.5	20	W.
12.....	49	34	42	57	0	7.2	8.3	14	W.
13.....	59	40	50	62	0	0.1	9.8	16	S. W.
14.....	54	37	46	78	.06	0.0	10.8	21	W;
15.....	43	33	38	60	0	9.8	9.6	21	N. W.
16.....	39	34	36	90	.18	0	6.0	12	N.
17.....	52	36	44	68	0	9.8	9.2	14	N. W.
18.....	64	39	52	58	0	8.9	10.8	16	W.
19.....	58	50	54	74	0	0.5	7.7	17	E.
20.....	71	54	62	68	.16	8.0	13.6	30	W.
21.....	54	45	50	75	0	9.3	8.9	14	N. W.
22.....	68	45	56	81	0	7.3	10.2	18	S. W.
23.....	71	49	60	64	T	5.5	15.1	29	S. W.
24.....	49	37	43	76	T	4.0	8.8	16	N. W.
25.....	43	37	40	70	0	9.5	7.3	26	N. W.
26.....	51	33	42	60	T	0.5	12.0	17	N. W.
27.....	36	27	32	62	0	3.8	10.6	17	N.
28.....	42	32	37	72	T	0	8.0	13	S. E.
29.....	44	39	42	94	1.29	0	13.1	21	N.
30.....	44	35	40	85	T	2.0	11.5	21	N.
31.....									
Totals.....	—	—	—	—	2.15	150.5	—	—	—
Means.....	53.7	39.3	46.6	70.0	0.07	51%	10.5	4th	W.

Latitude 42 degrees 21 minutes.

Longitude 71 degrees 4 minutes.

BOSTON WARD MAP.



1559

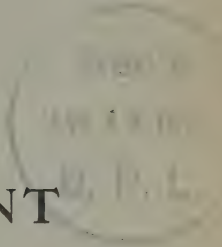
MONTHLY BULLETIN

OF THE

HEALTH DEPARTMENT

OF THE

CITY OF BOSTON



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ORGANIZATION OF THE HEALTH DEPARTMENT

FRANCIS X. MAHONEY, M. D., *Chairman.*

P. H. MULLOWNEY, M. D. V.

F. H. SLACK, M. D., *Secretary.*

MONTHLY BULLETIN

OF THE

HEALTH DEPARTMENT OF THE CITY OF BOSTON.

All communications relating to this publication should be addressed to
BULLETIN OF THE HEALTH DEPARTMENT, 100 Summer St., Boston.

VOL. 2.

BOSTON, DECEMBER, 1913.

No. 12.

SUMMARY OF VITAL STATISTICS FOR THE MONTH OF DECEMBER, 1913.

Boston had 1,119 deaths in December, 1913, compared with 1,002 for December of last year, and a death rate of 17.92 against 16.39 for December, 1912. Deaths of nonresidents numbered 114 for December, 1913, compared with 127 for December of the preceding year. Deducting deaths of nonresidents the corrected death rate for December, 1913, was 16.09, against 14.31 for December, 1912.

Of deaths from reportable diseases the principal decreases were measles, 30; whooping cough, 8, and diphtheria, 6; and the principal increase was tuberculosis (all forms), 14.

Other important differences were as follows:

December, 1913, decreases compared with December, 1912:

Pneumonia (all forms)	18
Bronchitis	8

December, 1913, increases compared with December, 1912:

"Other diseases"	58
Organic heart diseases, Bright's disease and nephritis	57
Violent deaths	26
Cancer	10

Ward 25 had the lowest death rate, 11.91, and Ward 7 the highest, 24.39. There were 6 more deaths under one year than in December, 1912, 36 less under 5 years, and 56 more over 60.

Total deaths under one year numbered 166, which is 13 more than the average number for December for the preceding five

years. Of these 166 deaths, 73 were due to premature birth, congenital debility, malformations and other diseases peculiar to early infancy; 37 to pneumonia and broncho-pneumonia; 20 to diarrhea and enteritis; 7 to reportable diseases and 29 to all other causes.

Of deaths under one year Ward 1 had the largest number, 11. Ninety-nine were over two weeks old and of these 72 were bottle-fed.

VITAL STATISTICS.

GENERAL STATISTICS.
Population, Ward Area, Persons to Acre, and Rates.

	Land Area in Acres.	Population, 1910 Census.	Persons to Acre of Land. (Using Census Population.)	Population, Estimated, July 1, 1913.†	STILLBIRTHS EXCLUDED.		
					Death Rates, 1912. (Population, Estimated.)†	Birth Rates, 1911. (Population, Estimated.)†	Death Rates, 1912, of Children Under One Year, Per 1,000 Births, 1911.
* Boston.....	27,674	686,092	24.8	735,399	16.17	25.99	119.35
Wards 1.....	1,188	29,676	24.9	32,439	13.05	24.90	104.58
2.....	357	28,812	80.7	30,676	17.11	33.37	120.81
3.....	332	15,339	46.2	15,667	15.29	26.84	106.02
4.....	301	13,294	44.1	13,808	18.02	25.50	148.26
5.....	207	12,811	61.9	12,914	16.69	24.28	118.59
6.....	293	35,758	122.0	39,492	16.18	48.81	100.33
7.....	394	14,913	37.9	14,483	20.05	26.57	94.39
8.....	171	32,430	189.6	33,479	12.07	33.21	70.64
9.....	186	26,427	141.5	29,214	15.13	27.40	106.24
10.....	394	25,320	64.3	26,277	11.86	10.51	114.81
11.....	663	27,444	41.4	30,738	9.69	14.22	63.73
12.....	235	24,294	103.4	25,948	14.98	14.57	181.82
13.....	611	21,561	35.3	21,501	17.24	31.11	117.91
14.....	405	23,584	58.2	24,527	14.44	24.14	115.92
15.....	277	21,216	76.6	21,803	14.80	20.25	119.82
16.....	564	25,633	45.6	28,033	12.75	24.23	110.42
17.....	460	26,426	57.4	27,793	15.49	25.65	117.22
18.....	220	22,735	103.3	23,133	17.08	25.08	99.30
19.....	760	31,714	41.7	33,332	13.77	22.77	111.41
20.....	1,716	55,720	32.5	64,723	12.97	20.33	†158.90
21.....	640	30,511	20.5	33,085	13.54	17.53	85.14
22.....	760	29,975	38.1	31,403	12.50	20.55	100.48
23.....	7,617	30,668	4.0	33,423	12.13	19.93	94.94
24.....	3,252	37,749	11.6	41,695	12.63	23.73	103.11
25.....	2,740	26,575	9.7	29,661	11.95	24.73	96.21
26.....	2,869	15,507	5.4	16,152	12.29	29.59	107.30

* Hyde Park was annexed to Boston January 1, 1912, and became Ward 26. Under "Boston," in the above table, Hyde Park statistics are included.

† Population estimated by arithmetical method, using the censuses of 1905 and 1910.

‡ An infant asylum is located in this ward.

VITAL STATISTICS.

December. General Summary.

	1913.	1912.
Total deaths	1,119	1,002
Population, estimated*	735,399	720,031
Death rate per 1,000	17.92	16.39
Deaths of nonresidents	114	127
Corrected death rate†	16.09	14.31

* Population estimated by arithmetical method, using the censuses of 1905 and 1910.

† Nonresidents not included.

December, 1913. Statement of Deaths.

Total number (stillbirths ex- cluded)		1,119	NATIVITY.	
SEX.			United States	632
Males	592		Ireland	183
Females	527		England and Wales	26
CONDITION.			Scotland	11
Single	457		Germany	14
Married	394		Canada	105
Widowed	241		Italy	39
Divorced	6		Russia and Poland	45
Unknown	21		Sweden and Norway	12
COLOR.			France	1
White	1,081		Other countries	19
Black (negro or mixed)	35		Unknown	32
Chinese	3		NATIVITY OF MOTHERS.	
Deaths of children:			United States	303
Under one year	166		Ireland	344
Under two years	186		England and Wales	37
Under five years	208		Scotland	18
Stillbirths during the month,	57		Germany	19
			Canada	111
			Italy	69
			Russia and Poland	78
			Sweden and Norway	12
			France	1
			Other countries	27
			Unknown	100

Abridged List Class Number.	CAUSES OF DEATH.	TOTALS.		Under 1 Year.	1 Year.	2 Years.	3 Years.	4 Years.	Under 5 Years.	5 to 9 Years.	10 to 14 Years.	15 to 19 Years.
		1913.	1912.									
	Total, all causes.....	{1913 1,119 1912 1,002	.....	166 160	20 40	9 26	6 11	7 7	208 244	10 19	11 17	24 17
1	Typhoid fever.....	2	4	.....	.....	.....	.....	.....	.....	.....	.....	1
3	Malarial fever.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
4	Smallpox.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
5	Measles.....	1	31	.....	1	.....	.....	.....	1	.....	.....	.....
6	Scarlet fever.....	8	8	.....	1	2	2	1	3	.....	1	.....
7	Whooping cough.....	1	9	.....	1	.....	.....	.....	1	.....	.....	.....
8	Diphtheria and croup.....	9	15	.....	3	1	1	1	6	3	.....	.....
9	Influenza.....	4	3	1	.....	.....	.....	.....	1	.....	.....	.....
11	Cholera nostras.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
12	Other epidemic diseases.....	6	2	4	.....	.....	.....	.....	4	.....	.....	.....
13	Tuberculosis of the lungs.....	101	83	.....	.....	.....	.....	.....	.....	.....	1	7
14	Tuberculous meningitis.....	8	12	3	2	.....	2	.....	7	.....	1	.....
15	Other forms of tuberculosis.....	7	7	.....	.....	2	.....	.....	2	1	.....	1
16	Cancer, malignant tumor.....	83	73	.....	.....	.....	.....	.....	.....	.....	.....	.....
17	Simple meningitis (except cerebro-spinal meningitis).....	3	3	1	1	1	.....	.....	3	.....	.....	.....
17a	Cerebro-spinal meningitis.....	4	2	3	.....	.....	.....	.....	3	.....	.....	1
18	Apoplexy and softening of the brain.....	51	45	1	.....	.....	.....	.....	1	.....	.....	.....
19	Organic heart diseases.....	171	138	1	.....	.....	.....	.....	1	.....	2	2
20	Acute bronchitis.....	10	12	3	.....	.....	.....	1	4	.....	.....	.....
21	Chronic bronchitis.....	4	10	.....	.....	.....	.....	.....	.....	.....	.....	.....
22	Pneumonia (except broncho-pneumonia).....	101	110	14	3	.....	.....	.....	17	1	.....	1
22a	Broncho-pneumonia.....	44	53	23	4	.....	1	1	29	.....	.....	.....
23	Other respiratory diseases.....	9	7	1	1	.....	.....	.....	2	.....	.....	.....
24	Diseases of the stomach (cancer excepted).....	5	7	.....	.....	.....	.....	.....	.....	.....	.....	.....
25	Diarrhea and enteritis (under two years).....	21	16	20	1	.....	.....	.....	21	.....	.....	.....
26	Appendicitis and typhlitis.....	13	10	.....	.....	1	.....	.....	1	.....	.....	1
27	Hernia, intestinal obstruction.....	8	13	1	.....	.....	.....	.....	1	.....	.....	.....
28	Cirrhosis of liver.....	2	6	.....	.....	.....	.....	.....	.....	.....	.....	.....
29	Bright's disease and nephritis.....	92	68	.....	.....	.....	.....	.....	.....	.....	.....	1
30	Diseases of women (not cancer).....	5	7	.....	.....	.....	.....	.....	.....	.....	.....	.....
31	Puerperal septicemia.....	5	4	.....	.....	.....	.....	.....	.....	.....	.....	.....
32	Other puerperal diseases.....	8	5	.....	.....	.....	.....	.....	.....	.....	.....	.....
33	Congenital debility and malformations.....	58	54	57	.....	1	.....	.....	58	.....	.....	.....
34	Old age.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
35	Violent deaths.....	86	60	1	.....	.....	.....	2	3	2	2	3
36	Suicide.....	10	5	.....	.....	.....	.....	.....	.....	.....	.....	.....
37	Other diseases.....	176	118	30	2	1	.....	1	34	3	4	6
38	Ill-defined causes.....	3	2	2	.....	.....	.....	.....	2	.....	.....	.....

20 to 24 Years.	25 to 29 Years.	30 to 34 Years.	35 to 39 Years.	40 to 44 Years.	45 to 49 Years.	50 to 54 Years.	55 to 59 Years.	60 to 64 Years.	65 to 69 Years.	70 to 74 Years.	75 to 79 Years.	80 to 84 Years.	85 to 89 Years.	90 Years and over.	Sex.		Abridged List Class Number.
															Males.	Females.	
30 27	49 37	65 42	75 55	73 61	70 58	80 73	72 56	85 74	80 73	73 67	52 42	34 21	23 12	5 7	592 515	527 487	
		1													1	1	1
																	3
																	4
															1		5
1															6	2	6
															1		7
															4	5	8
												2	1		1	3	9
																	11
1				1											4	2	12
8	10	14	16	9	13	7	10	2	2	1	1				60	41	13
															4	4	14
1	1				1										5	2	15
	2	1	4	5	6	12	8	13	16	6	3	4	2	1	33	50	16
															2	1	17
															3	1	17a
		1	1	2	3	3	5	6	5	9	10	4	1		23	28	18
3	7	2	6	10	8	14	16	33	17	18	17	5	8	2	63	108	19
							1			3	1		1		5	5	20
									1	2		1			1	3	21
2	6	9	11	7	5	7	8	5	5	10	4	1	1	1	47	54	22
			1		1	4	3	1	1	1	2	1			28	16	22a
				2				3	2						5	4	23
				1		1	1			1	1				2	3	24
															10	11	25
2	1	2	2	1			1		1	1					8	5	26
2		1	1			1			1	1					3	5	27
						2									2		28
1	3	3	10	8	8	10	5	10	9	11	5	4	3	1	52	40	29
	1		2	1	1											5	30
2	1	2														5	31
2	4	2														8	32
															35	23	33
																	34
	6	13	11	8	12	8	7	2	6	1		1	1		73	13	35
	2	2	1	4	1										8	2	36
5	5	12	9	13	11	11	7	10	14	8	8	11	5		101	75	37
				1											1	2	38

Abridged List Class Number.	CAUSES OF DEATH.	Boston.	WARD RESIDENCE.										
			1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.
	All causes.....	1,119	45	41	19	18	18	51	30	38	36	34	37
	Rates per 1,000 popula- tion.....	17.92 16.39	16.33 9.69	15.74 16.82	14.28 19.67	15.35 13.80	16.41 19.19	15.21 14.13	24.39 23.36	13.36 11.72	14.51 19.11	15.23 12.24	14.17 11.89
1	Typhoid fever.....	2											
3	Malarial fever.....												
4	Smallpox.....												
5	Measles.....	1											
6	Scarlet fever.....	8	1	1							1		1
7	Whooping cough.....	1											
8	Diphtheria and croup.....	9						3					
9	Influenza.....	4								1			
12	Other epidemic diseases.....	6						1	1			1	
13	Tuberculosis of the lungs.....	101	2	5	2	4	2	5	4	2	3	3	1
14	Tuberculous meningitis.....	8	1										1
15	Other forms of tuberculosis.....	7											1
16	Cancer, malignant tumor.....	83	7	5			1	1	2	3	3	3	3
17	Simple meningitis (except cerebro-spinal meningitis).	3		1									
17a	Cerebro-spinal meningitis.....	4						1			1		
18	Apoplexy and softening of the brain.....	51	6		1	1	2			2	3	2	2
19	Organic heart diseases.....	171	5	5	1	2	4	5	4	8	4	7	8
20	Acute bronchitis.....	10					1	2					
21	Chronic bronchitis.....	4		1								1	
22	Pneumonia (except broncho- pneumonia).	101	6	3	3	2	1	12	2	3	3	2	
22a	Broncho-pneumonia.....	44	2	1	1	2		4	2	1	1		3
23	Other respiratory diseases.....	9					1				1		
24	Diseases of the stomach (cancer excepted).	5											
25	Diarrhea and enteritis (under two years).	21		2	1	1						2	
26	Appendicitis and typhlitis.....	13				1		1		1	1	1	
27	Hernia, intestinal obstruction,	8	1							2			1
28	Cirrhosis of liver.....	2										2	
29	Bright's disease and nephritis..	92	5	4	4	2	1	4	1	3	1	3	7
30	Diseases of women (not cancer),	5											
31	Puerperal septicemia.....	5		1					1				1
32	Other puerperal diseases.....	8						1		1			
33	Congenital debility and mal- formations.	58	3	3		1	1	1	2	5	3	1	1
34	Old age.....												
35	Violent deaths.....	86	2	1	2	2	1	4		1	4	1	1
36	Suicide.....	10											
37	Other diseases.....	176	4	8	4		3	6	11	4	7	5	6
38	Ill defined causes.....	3								1			
	Total deaths under one year..	166	11	5	2	4	2	8	5	9	7	5	4

Of deaths of nonresidents from typhoid fever, measles, scarlet fever and diphtheria there was one

December, 1913.

[illegible]

death from measles and one death from scarlet fever among cases brought to Boston for treatment.

VITAL STATISTICS.
December, 1913, Infant Mortality.

Detailed List Class Number.	CAUSES OF DEATH.	DECEMBER TOTALS, UNDER 1 YEAR.		Under 1 Day.	1 to 2 Days.	2 to 3 Days.	3 Days to 1 Week.	1 to 2 Weeks.	2 to 3 Weeks.	3 Weeks to 1 Month.	1 to 2 Months.	2 to 3 Months.	3 to 6 Months.	6 to 9 Months.	9 to 12 Months.	AGED 2 WEEKS AND OVER.		Nonresidents.
		1913.	1912.													Breast Fed.	Bottle Fed.	
	Total.....	166	160	28	7	10	13	9	7	7	19	12	28	14	12	27	72	16
	Male.....	97	98	18	5	7	7	4	6	4	7	7	16	10	6	15	41	9
	Female.....	69	62	10	2	3	6	5	1	3	12	5	12	4	6	12	31	7
	White.....	162	155	27	7	10	13	9	7	7	19	12	26	13	12	25	71	15
	Colored.....	4	5	1									2	1		2	1	1
1	Typhoid fever.....																	
5	Smallpox.....																	
6	Measles.....		8															
7	Scarlet fever.....		1															
8	Whooping cough.....		5															
9	Diphtheria and croup.....		3															
10	Influenza.....	1												1			1	
14	Dysentery.....																	
18	Erysipelas.....	4	1						1			2	1			2	2	
19	Other epidemic diseases.....																	
20	Pus-infection and septicemia.....	1								1							1	
24	Tetanus.....																	
28	Tuberculosis of the lungs.....		1															
29	Acute miliary tuberculosis.....																	
30	Tuberculous meningitis.....	3	5										1	1	1		3	
31	Other forms of tuberculosis.....		1															
35																		
36	Rickets.....																	
37	Syphilis.....	4	3								1	1	1		1		4	1
38	Gonococcus infection.....																	
61	Simple meningitis.....	1							1								1	
61a	Cerebro-spinal fever.....	3	1										1	2		1	2	
63a	Acute poliomyelitis.....	1													1	1		
71	Convulsions.....		1															
76	Diseases of the ears.....	2											2			1	1	
79	Organic diseases of the heart.....	1											1				1	
89	Acute bronchitis.....	3	7								1		1	1		3		
91	Broncho-pneumonia.....	23	13				1	1	1	1	1	4	6	4	4	4	17	2
92	Pneumonia.....	14	14				2	1			2	1	2	3	3	3	8	
93	Pleurisy.....		1															
103	Other diseases of stomach.....		1															

VITAL STATISTICS.

December, 1913, Infant Mortality.—*Concluded.*

Detailed List Class Number.	CAUSES OF DEATH.	DECEMBER TOTALS, UNDER 1 YEAR.		Under 1 Day.	1 to 2 Days.	2 to 3 Days.	3 Days to 1 Week.	1 to 2 Weeks.	2 to 3 Weeks.	3 Weeks to 1 Month.	1 to 2 Months.	2 to 3 Months.	3 to 6 Months.	6 to 9 Months.	9 to 12 Months.	AGED 2 WEEKS AND OVER.		Nonresidents.
		1913.	1912.													Breast Fed.	Bottle Fed.	
104	Diarrhea and enteritis.....	20	15	...	...	1	...	...	1	1	6	3	7	1	...	5	14	5
108	Appendicitis and typhlitis ...			...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
109	Hernias,intestinal obstruction,	1	2	...	...	...	...	...	...	...	...	...	...	1	...	...	1	...
117	Simple peritonitis.....			...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
119	Acute nephritis.....		1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
143	Furuncle.....			...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
144	Acute abscess.....			...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
145	Other diseases of skin, etc....			...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
150a	Hydrocephalus.....	2	...	1	...	...	...	...	...	...	1	...	...	...	...	...	1	...
b	Congenital malformations of heart.	6	12	1	...	1	...	1	1	...	1	...	1	...	...	1	2	1
c	Other malformations.....	7	4	1	...	1	4	1	...	...	...	...	...	...	...	...	...	...
151a	Premature birth.....	35	30	17	4	4	2	2	1	1	3	1	...	...	...	2	4	3
b	Congenital debility.....	7	7	1	...	...	...	1	1	2	1	...	1	...	...	1	4	...
152a	Injuries at birth.....	8	11	4	1	...	2	1	...	...	...	...	...	...	...	...	...	1
b	Other causes peculiar to early infancy.	8	6	3	2	1	1	...	...	1	...	...	...	...	...	1	...	2
167	Burns (conflagrations ex- cepted).		1	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
168	Absorption of deleterious gases,	1	1	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...
172	Traumatism by fall.....			...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
182	Homicide.....			...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
184	...			...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
187	Ill-defined diseases.....	2	2	...	...	...	...	...	...	...	1	...	1	...	...	2	...	...
189	Other causes.....	8	2	...	...	2	1	...	...	...	1	...	2	...	2	...	5	1
	Breast fed *.....	27	28	...	...	...	...	...	3	1	4	5	7	4	3	27	...	3
	Bottle fed *.....	72	81	...	...	...	...	...	4	6	15	7	21	10	9	...	72	7
	Nonresidents.....	16	15	2	1	1	...	1	1	...	2	1	3	2	1	3	7	16

* Aged two weeks and over.

Additional Deaths for Other Months.

May, 1913.—1 female; Bright's disease; white; aged 77 years; married; residence Ward 2; born in United States; mother born in Ireland.

July, 1913.—1 female; suicide by jumping from high place; white; aged 25 years; condition unknown; non-resident; birthplace unknown; birthplace of mother unknown.

Aug., 1913.—1 female; prematurity; white; aged 1 day minus; single; residence Ward 1; born in United States; birthplace of mother unknown.

Sept., 1913.—1 male; organic disease of the heart; white; aged 59 years; single; residence unknown; birthplace unknown; birthplace of mother unknown.

1 male; prematurity; white; aged 1 day minus; single; residence Ward 9; born in United States; mother born in Russia or Poland.

1 male; prematurity; white; aged 3 days; single; residence Ward 9; born in United States; mother born in Russia or Poland.

Additional Deaths for Other Months.—*Concluded.*

- Oct., 1913.—1 female; alcoholism; white; aged 47 years; widow; nonresident; birthplace unknown; birthplace of mother unknown.
 1 male; alcoholism; white; aged 37 years; single; residence unknown; birthplace unknown; birthplace of mother unknown.
 1 male; organic disease of the heart; white; aged 60 years; condition unknown; residence unknown; birthplace unknown; birthplace of mother unknown.
 1 female; organic disease of the heart; white; aged 60 years; condition unknown; residence unknown; birthplace unknown; birthplace of mother unknown.
 1 male; suicide by asphyxia; white; aged 25 years; condition unknown; residence unknown; birthplace unknown; birthplace of mother unknown.
 1 male; traumatism by other crushing, etc.; white; aged 52 years; condition unknown; residence unknown; birthplace unknown; birthplace of mother unknown.
- Nov., 1913.—1 male; tuberculosis; white; aged 56 years; single; residence Ward 9; birthplace unknown; birthplace of mother unknown.
 1 male; alcoholism; white; aged 35 years; condition unknown; residence unknown; birthplace unknown; birthplace of mother unknown.
 1 male; epilepsy; white; aged 48 years; condition unknown; residence Ward 8; birthplace unknown; birthplace of mother unknown.
 1 male; organic disease of heart; white; aged 56 years; condition unknown; residence unknown; birthplace unknown; birthplace of mother unknown.
 1 male; organic disease of heart; white; aged 60 years; single; residence unknown; birthplace unknown; birthplace of mother unknown.
 1 male; organic disease of heart; white; aged 39 years; single; residence Ward 11; birthplace unknown; birthplace of mother unknown.
 1 male; organic disease of heart; white; aged 44 years; married; residence Ward 7; birthplace unknown; birthplace of mother unknown.
 1 female; organic disease of heart; white; aged 64 years; married; residence Ward 7; birthplace unknown; birthplace of mother unknown.
 1 male; burns (conflagration excepted); white; aged 27 years; single; residence unknown; birthplace unknown; birthplace of mother unknown.
 1 male; homicide by firearms; white; aged 28 years; married; residence Ward 26; birthplace unknown; mother born in Italy.
- Nov.—4 stillbirths.

COMMUNICABLE DISEASES.

**DIVISION OF COMMUNICABLE DISEASES,
DECEMBER, 1913.**

Medical Inspectors.

New cases visited:

Diphtheria:

a. Isolation	77
b. Diagnosis	5

Scarlet fever:

a. Isolation	280
b. Diagnosis	52
c. Release	57

Typhoid fever	26
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Typhoid prophylactic given	10
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Measles	18
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Varicella:

a. Isolation	5
b. Diagnosis	3

Ophthalmia neonatorum	2
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Tuberculosis	5
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Whooping cough	0
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Poliomyelitis	1
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Deaths investigated	33
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Vaccinations performed	6
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Certificates granted	8
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Nurses.

New cases visited:

Diphtheria	163
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Scarlet fever	369
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Typhoid fever	35
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Whooping cough	61
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Ophthalmia neonatorum	109
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Measles	153
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Varicella	65
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Old cases visited:

Diphtheria	340
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Scarlet fever	1,600
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Typhoid fever	102
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Whooping cough	51
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Ophthalmia neonatorum	319
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Measles	162
Varicella	67
Release cultures taken for diphtheria	115

Forcible Removals.

Scarlet fever	7
Typhoid fever	1
Measles	3

Disinfections.

Diphtheria	168
Scarlet fever	143
Phthisis	148

DIVISION OF

December, 1913.

Cases Reported.

WARDS.	Anterior Poliomyelitis.	Actinomycosis.	Asiatic Cholera.	Bubonic Plague.	Cerebro-spinal Meningitis.	Diphtheria.	Glanders.	Leprosy.	Malaria.	Malignant Pustule.	Measles.	Mumps.	Opht m Neonatorum.
1.....						9					26	11	2
2.....						11			1	1	41	3	10
3.....						7							3
4.....						2					1		1
5.....						2							
6.....	1				1	18					4	12	11
7.....						2					2	1	10
8.....	2					16				1	7	42	8
9.....					1	3					17	9	5
10.....	2					2						4	1
11.....						13					4	6	1
12.....						6					1	1	3
13.....						2						1	12
14.....						2					1	2	3
15.....					1	6					2		7
16.....	1					4					1	5	4
17.....						9					1	11	1
18.....						9					1	4	4
19.....						11					1	7	
20.....						25					5	15	7
21.....						8					2	16	5
22.....						5						8	3
23.....					1	16			1			2	2
24.....					1	11					3	3	1
25.....						9					1	2	1
26.....						8					14	1	2
Total.....	6				5	216			2	2	135	166	107
Unknown.....													
Nonresidents.....						29							9
Grand total.....	6				5	245			2	2	135	166	116
Corresponding month last year..					2	171			1		677	49	108

Included in the nonresidents were the following cases brought to

COMMUNICABLE DISEASES.

Cases Reported.

December, 1913.

Scarlet Fever.	Smallpox.	Tetanus.	Trachoma.	Trichinosis.	Tuberculosis (Pulmonary and Miliary).	Tuberculosis (Other Forms).	Typhoid Fever.	Typhus Fever.	Varicella.	Whooping Cough.	Yellow Fever.	WARDS.
37	5	1	1	...	5	...	...	1
17	1	...	11	...	2	...	2	4	...	2
10	4	...	1	...	3	...	...	3
6	1	...	16	...	...	...	1	...	...	4
5	3	...	...	...	...	1	...	5
6	20	...	2	...	4	6	...	6
2	18	1	...	...	2	...	...	7
24	23	1	...	...	18	5	...	8
12	1	...	19	...	...	...	3	...	...	9
2	13	...	...	...	...	1	...	10
11	15	...	2	...	8	2	...	11
16	9	...	1	...	2	2	...	12
12	10	...	4	...	4	3	...	13
12	7	...	5	...	7	...	...	14
10	6	2	1	...	...	...	...	15
9	7	2	...	...	4	2	...	16
3	14	...	1	...	10	...	...	17
2	14	1	2	...	19	3	...	18
14	13	...	2	...	15	5	...	19
19	14	...	1	...	8	7	...	20
10	9	...	...	...	4	...	...	21
6	12	...	3	...	3	1	...	22
9	1	...	8	3	...	...	10	...	...	23
30	8	1	1	...	20	...	...	24
21	4	...	...	...	1	...	...	25
8	3	...	1	...	2	1	...	26
313	4	...	285	12	30	...	155	43	...	Total
...	2	...	...	...	...	...	...	Unknown
35	...	1	...	...	10	2	...	...	...	...	...	Nonresidents
348	...	1	4	...	297	14	30	...	155	43	...	Grand total
199	...	1	4	1	263	25	20	...	146	121	...	Corresponding month last year.

Boston for treatment: Diphtheria, 29 cases; scarlet fever, 35 cases.

DIVISION OF CHILD HYGIENE.—DECEMBER, 1913.

1. Pre-Natal and Post-Natal Work.

1. *Pre-Natal.*

Number cases	34	Breast-fed	10
Number visits	71	Bottle-fed	0
Babies born	15	Both feedings	0

Mothers attended as follows:

Family physician	4	Midwife	2
Hospital	9		

Results:

Mortality, mothers	0	Mortality, babies at birth	5
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Defective conditions noted as follows:

Miscarriage	0	Varicose veins	3
Eclampsia	0	Miscellaneous	0
Oedema	4		

2. *Post-Natal.*

Number cases	866	Breast-fed	783
Number visits	1,767	Bottle-fed	39
Number babies not located	90	Both feedings	44

Defective conditions noted as follows:

Ophthalmia	26	Skin disease	6
Improper feeding	33	Miscellaneous	3

Recommendations:

Family physician	28	Milk stations	30
Hospital	25		

2. Medical Inspection of Schools.

Number inspections made	17,797
Number physical examinations made	16,945
Number visits made to homes	269

There were 1,408 pupils excluded from school during the month, for the following causes:

Scarlet fever	3	Trachoma	1
Measles	33	Acute or purulent conjunc-	
German measles	2	tivitis	24
Chicken pox	36	Ringworm	29
Whooping cough	8	Scabies	39
Mumps	46	Impetigo	73
Pulmonary tuberculosis	12	Favus	1
Acute tonsillitis	104	Molluscum contagiosum	2
Influenza	1	Miscellaneous	274
Pediculosis	750		

There were 15,807 cases of noncontagious diseases found, subdivided as follows:

Diseases of oral and respiratory tract	3,909
Diseases of the ear	88
Diseases of the eye	386
Diseases of the skin	726
Dental caries	5,435
Miscellaneous	5,263

3. Physical Examination of Licensed Minors.

There were 342 girls and 479 boys between the ages of 14 and 16 years examined during the month. Two-hundred and seventy-eight were found without defects and 543 with defects, as follows:

Hearing	2	Pulmonary disease	1
Eyesight	74	Cardiac disease	7
Defective nasal breathing	4	Orthopedic defects	1
Hypertrophied tonsils	16	Skin	1
Defective teeth	495		

Certificates were granted to 819 applicants; refused to 2.

BACTERIOLOGICAL LABORATORY.

DIPHTHERIA:		GONORRHEA:	
Positive for diagnosis...	125	Positive.....	42
Positive for release.....	50	Negative.....	120
Negative for diagnosis... 1,403		Unsatisfactory.....	0— 162
Negative for release..... 324		GONORRHEAL OPHTHALMIA:	
"No growth" cultures... 9— 1,911		Positive.....	2
TUBERCULOSIS:		Negative.....	52
Positive.....	75	Unsatisfactory.....	0— 54
Negative.....	391	OTHER EXAMINATIONS:	
Unsatisfactory.....	0— 466	*Positive.....	11
TYPHOID:		Negative.....	55
Positive.....	23	Unsatisfactory.....	1— 67
Negative.....	135	BACTERIOLOGICAL MILK	
Atypical.....	0	EXAMINATIONS.....	726
Unsatisfactory.....	11— 170	BACTERIOLOGICAL ICE	
		CREAM EXAMINATIONS..	40
		Total.....	3,596

*K-L. Vir. organisms, malaria, G-U. T. B., paratyphoids, spirochaetae pallida; blood.

INSPECTION OF MILK, VINEGAR, ETC.

Examination as to Statute Requirements.

Samples examined, milk from stores.....	627
" " milk from wagons.....	675
" " milk brought in by citizens.....	21
" " milk for bacteriological examination.....	726
" " ice cream for bacteriological examination.....	40
" " vinegar.....	124
" " butter and cheese.....	225
" " ice cream.....	5
" " molasses.....	5
" " meat.....	1
Total samples.....	2,449

INSPECTION OF DAIRIES.

Satisfactory * on first inspection.....	81
Satisfactory on later inspection.....	92
	173
Unsatisfactory on first inspection.....	72
Unsatisfactory on later inspection.....	57
	129
Total number of inspections.....	302
Dairies having milk rooms.....	110
Dairies without milk rooms.....	192
Number of cows inspected.....	3,197
Number of dairies prohibited shipping milk to Boston, because of insanitary conditions of premises.....	38

* "Satisfactory" means having a score of at least 45 per cent by the government score card.

DIVISION OF FOOD INSPECTION.

Cattle inspected.....	563	Cattle condemned (70 parts)....	1,086 lbs.
Calves inspected.....	1,015	Calves condemned (10 whole)...	313 lbs.
Sheep inspected.....	71	Swine condemned (14 whole)....	1,679 lbs.
Swine inspected.....	8,564	Swine condemned (248 parts)...	2,103 lbs.

INSPECTION OF PROVISIONS.—ARTICLES CONDEMNED.

Meats.		Miscellaneous.	
Beef (tainted).....	957 lbs.	Fish (tainted).....	29,434 lbs.
Pork (tainted).....	53 lbs.	Mustard (tainted).....	50 gals.
Mutton (tainted).....	5 lbs.		
Poultry (tainted).....	6,496 lbs.		
Rabbits (tainted).....	25 lbs.		
Frogs legs (tainted).....	78 lbs.		

New reports.....	778
Plumbing defects referred to Sanitary Division.....	15
Defects remedied.....	90
Milk applications approved.....	117

QUARANTINE.

Vessels inspected at quarantine.....	60
Total immigrants arriving in Boston.....	3,649

SANITARY INSPECTION DIVISION.

December, 1913.

New reports.....	2,724*
Reinspections.....	6,915
New tenement house reports.....	959
Nuisances reported.....	7,831
Legal notices.....	289
Court cases.....	9
Fines.....	\$70
Tenements vacated.....	6
Stable permits granted.....	2
Stable permit hearings.....	3
Stable permit withheld.....	1
Dump permits granted.....	6
Dump permit revoked.....	1

MONTHLY METEOROLOGICAL SUMMARY.
Taken at Weather Bureau, Boston, December, 1913.

DAY.	TEMPERATURE, DEGREES FAHRENHEIT.			Relative Humidity.	Daily Precipitation.	Actual Hours Sun- shine.	WIND.		
	Maximum.	Minimum.	Mean.				Average Hourly Velocity. (Miles.)	Maximum Velocity. (Miles.)	Prevailing Direction.
1.....	46	37	42	91	T	0	5.4	10	N. W.
2.....	45	39	42	86	0	0	6.9	13	N.
3.....	50	37	44	76	T	6.8	15.0	35	N. W.
4.....	47	36	42	68	0	0.6	12.4	22	W.
5.....	53	41	47	64	0	8.5	11.3	19	W.
6.....	46	37	42	55	0	9.2	9.3	20	N. W.
7.....	56	37	46	85	.89	0	13.0	29	E.
8.....	55	27	41	58	.30	3.0	23.1	40	W.
9.....	41	24	32	46	0	9.2	14.9	30	N. W.
10.....	42	28	35	57	0	0.5	11.1	18	S. W.
11.....	42	21	32	68	T	3.9	12.5	26	N. W.
12.....	41	20	30	50	0	7.2	10.2	19	W.
13.....	53	34	44	69	0	9.2	8.5	14	W.
14.....	56	36	46	66	0	5.7	12.0	25	W.
15.....	41	28	34	62	0	9.2	12.0	24	W., N. W.
16.....	44	32	38	56	0	0.1	6.8	13	W.
17.....	55	38	46	69	0	9.1	10.9	19	S. W.
18.....	48	26	37	68	T	4.7	11.1	26	W.
19.....	34	18	26	42	0	9.1	14.2	28	N. W.
20.....	46	28	37	68	0	5.3	9.7	17	S. W.
21.....	55	41	48	78	0	6.6	4.3	8	S. W.
22.....	47	38	42	63	0	2.0	7.1	14	N.
23.....	44	38	41	84	.36	0	15.4	33	E.
24.....	47	37	42	94	.50	0	11.4	27	N. W.
25.....	38	34	36	90	.15	0	7.8	22	N., N. E.
26.....	42	28	35	97	.85	0	19.0	30	N. E.
27.....	32	22	27	64	0	9.1	15.7	27	N. W.
28.....	33	20	26	54	0	3.0	6.6	13	W.
29.....	34	22	28	66	0	7.6	6.2	13	N. W.
30.....	41	24	32	66	0	7.1	9.7	16	W.
31.....	39	25	32	64	0	5.4	8.4	16	W.
Totals.....	—	—	—	—	3.05	140.6	—	—	—
Means.....	44.9	30.7	37.8	68.5	0.10	49%	11.0	8th	W.

Latitude 42 degrees 21 minutes.

Longitude 71 degrees 4 minutes.

BOSTON WARD MAP.



**Provisional Summary of Vital Statistics for the Year 1913
Compared with 1912.**

	1913.	1912.
Population (estimated by arithmetical method using the 1905 and 1910 Census).	735,399	720,031
Deaths from all causes (stillbirths excluded).....	11,836	11,643
Death rate per 1,000 inhabitants.....	16.09	16.17
Deaths of nonresidents.....	1,541	1,448
Corrected death rate per 1,000 inhabitants.....	14.00	14.16
Deaths of children under one year.....	2,111	2,186
Births. (From Registry Department. Figures for 1913 are provisional).	18,697	18,888
Death rate of children under one year per 1,000 births.....	112.90	115.73
Total number of stillbirths.....	735	742

Causes of Death.

I. GENERAL DISEASES.	1913.	1912.
1 Typhoid fever.....	60	57
4 Malaria.....		1
5 Smallpox.....		
6 Measles.....	77	111
7 Scarlet fever.....	77	32
8 Whooping cough.....	97	75
9 Diphtheria and croup.....	156	102
10 Influenza.....	27	27
12 Asiatic cholera.....		
13 Cholera nostras.....		1
14 Dysentery.....	7	8
18 Erysipelas.....	44	48
19 Other epidemic diseases.....	1	4
20 Purulent infection and septicemia.....	31	27
21 Glanders.....	1	
22 Anthrax.....	1	1
24 Tetanus.....	7	3
25 Mycoses.....	2	1
26 Pellagra.....	4	1

CAUSES OF DEATH.		1913.	1912.
28	Tuberculosis of the lungs.....	1,035	1,053
29	Acute miliary tuberculosis.....	29	40
30	Tuberculous meningitis.....	124	107
31	Abdominal tuberculosis.....	34	35
32	Pott's disease.....	9	7
33	White swellings.....	1	3
34	Tuberculosis of other organs.....	18	13
35	Disseminated tuberculosis.....	10	14
36	Rickets.....	11	4
37	Syphilis.....	53	63
38	Gonococcus infection.....		1
39	Cancer and other malignant tumors of the buccal cavity.....	42	27
40	Cancer and other malignant tumors of the stomach, liver.....	245	252
41	Cancer and other malignant tumors of the peritoneum, intestines, rectum.....	151	122
42	Cancer and other malignant tumors of the female genital organs. .	125	131
43	Cancer and other malignant tumors of the breast.....	85	98
44	Cancer and other malignant tumors of the skin.....	14	16
45	Cancer and other malignant tumors of other organs or of organs not specified.....	179	139
46	Other tumors (tumors of the female genital organs excepted).....		6
47	Acute articular rheumatism.....	37	26
48	Chronic rheumatism and gout.....	5	10
49	Scurvy.....		2
50	Diabetes.....	138	136
51	Exophthalmic goitre.....	8	11
52	Addison's disease.....	2	5
53	Leuchæmia.....	21	21
54	Anemia, chlorosis.....	54	57
55	Other general diseases.....	10	17
56	Alcoholism (acute or chronic).....	158	229
57	Chronic lead poisoning.....	3	3
59	Other chronic poisonings.....	1	1
		3,194	3,148
II. DISEASES OF THE NERVOUS SYSTEM AND OF THE ORGANS OF SPECIAL SENSE.			
60	Encephalitis.....	5	9
61	(1) Simple meningitis.....	58	53
61	(2) Cerebro-spinal meningitis (undefined).....	33	34
61	(3) Cerebro-spinal fever.....	4	2
62	Locomotor ataxia.....	16	14
63	Other diseases of the spinal cord.....	36	43

CAUSES OF DEATH.		1913.	1912.
64	Cerebral hæmorrhage, apoplexy.....	583	546
65	Softening of the brain.....	3	6
66	Paralysis without specified cause.....	19	26
67	General paralysis of the insane.....	50	45
68	Other forms of mental alienation.....	9	9
69	Epilepsy.....	15	15
70	Convulsions (nonpuerperal).....	1	.....
71	Convulsions of infants.....	13	26
72	Chorea.....	1	.....
73	Neuralgia and neuritis.....	4	10
74	Other diseases of the nervous system.....	41	35
75	Diseases of the eyes and their annexa.....	1	2
76	Diseases of the ears.....	34	23
		926	898
III. DISEASES OF THE CIRCULATORY SYSTEM.			
77	Pericarditis.....	13	26
78	Acute endocarditis.....	60	66
79	Organic diseases of the heart.....	1,629	1,532
80	Angina pectoris.....	67	38
81	Diseases of the arteries, atheroma, aneurysm, etc.....	225	182
82	Embolism and thrombosis.....	40	58
83	Diseases of the veins (varices, hæmorrhoids, phlebitis, etc.).....	5	7
84	Diseases of the lymphatic system (lymphangitis, etc.).....	10	23
85	Hæmorrhage; other diseases of the circulatory system.....	4	2
		2,053	1,934
IV. DISEASES OF THE RESPIRATORY SYSTEM.			
86	Diseases of the nasal fossæ.....		1
87	Diseases of the larynx.....	11	10
88	Diseases of the thyroid body.....	4	5
89	Acute bronchitis.....	82	77
90	Chronic bronchitis.....	42	47
91	Broncho pneumonia.....	528	446
92	Pneumonia.....	924	959
93	Pleurisy.....	40	30
94	Pulmonary congestion, pulmonary apoplexy.....	18	12
95	Gangrene of the lung.....	4	2
96	Asthma.....	4	9
97	Pulmonary emphysema.....		3
98	Other diseases of the respiratory system (tuberculosis excepted)...	7	9
		1,664	1,610

CAUSES OF DEATH.		1913.	1912.
V. DISEASES OF THE DIGESTIVE SYSTEM.			
99	Diseases of the mouth and annexa.....	5	2
100	Diseases of the pharynx.....	16	23
101	Diseases of the cesophagus.....	4	1
102	Ulcer of the stomach.....	33	32
103	Other diseases of the stomach (cancer excepted).....	39	61
104	Diarrhea and enteritis (under two years).....	525	591
105	Diarrhea and enteritis (two years and over).....	78	65
107	Intestinal parasites.....	1	2
108	Appendicitis and typhilitis.....	110	110
109	Hernia, intestinal obstruction.....	117	95
110	Other diseases of the intestines.....	7	10
111	Acute yellow atrophy of the liver.....	1	2
112	Hydatid tumor of the liver.....	1	
113	Cirrhosis of the liver.....	69	77
114	Biliary calculi.....	32	26
115	Other diseases of the liver.....	24	31
116	Diseases of the spleen.....		
117	Simple peritonitis (nonpuerperal).....	11	26
118	Other diseases of the digestive system (cancer and tuberculosis excepted).	8	8
		1,081	1,162
VI. NONVENEREAL DISEASES OF THE GENTIO-URINARY SYSTEM AND ANNEXA.			
119	Acute nephritis.....	43	50
120	Bright's disease.....	724	680
122	Other diseases of the kidneys and annexa.....	22	23
123	Calculi of the urinary passages.....	5	9
124	Diseases of the bladder.....	11	9
125	Diseases of the urethra, urinary abscess, etc.....	11	12
126	Diseases of the prostate.....	40	41
127	Nonvenereal diseases of the male genital organs.....	1	
128	Uterine Hemorrhage (nonpuerperal).....	1	1
129	Uterine tumor (noncancerous).....	19	23
130	Other diseases of the uterus.....	11	16
131	Cysts and other tumors of the ovary.....	5	10
132	Salpingitis and other diseases of the female genital organs.....	27	22
		920	896
VII. THE PUERPERAL STATE.			
134	Accidents of pregnancy.....	14	11
135	Puerperal hemorrhage.....	16	10

CAUSES OF DEATH.		1913.	1912.
136	Other accidents of labor.....	9	7
137	Puerperal septicemia.....	50	56
138	Puerperal albuminuria and convulsions.....	41	32
139	Puerperal phlegmasia alba dolens, embolus, sudden death.....	7	6
140	Following childbirth (not otherwise defined).....		
141	Puerperal diseases of the breast.....		1
		137	123
VIII. DISEASES OF THE SKIN AND OF THE CELLULAR TISSUE.			
142	Gangrene.....	14	19
143	Furuncle.....	4	4
144	Acute abscess.....	18	20
145	Other diseases of the skin and annexa.....	11	14
		47	57
IX. DISEASES OF THE BONES AND OF THE ORGANS OF LOCOMOTION.			
146	Diseases of the bones (tuberculosis excepted).....	36	38
147	Diseases of the joints (tuberculosis and rheumatism excepted)....	2	4
149	Other diseases of the organs of locomotion.....		2
		38	44
X. MALFORMATIONS.			
150	Congenital malformations (stillbirths not included).....	152	151
XI. EARLY INFANCY.			
151	Congenital debility, icterus and scierema.....	525	513
152	Other causes peculiar to early infancy.....	180	208
153	Lack of care.....	1	1
		706	722
XII. OLD AGE.			
154	Senility.....	21	34
XIII. EXTERNAL CAUSES.			
155	Suicide by poison.....	21	27
156	Suicide by asphyxia.....	23	35
157	Suicide by hanging or strangulation.....	9	2
158	Suicide by drowning.....	8	7
159	Suicide by firearms.....	28	29
160	Suicide by cutting or piercing instruments.....	9	5
161	Suicide by jumping from high places.....	5	4

CAUSES OF DEATH.		1913.	1912.
162	Suicide by crushing.....		2
163	Other suicides.....		2
164	Poisoning by food.....	2	
165	Other acute poisonings.....	14	10
166	Conflagration.....	42	28
167	Burns (conflagration excepted).....	77	81
168	Absorption of deleterious gases (conflagration excepted).....	43	56
169	Accidental drowning.....	77	53
170	Traumatism by firearms.....	4	2
171	Traumatism by cutting or piercing instruments.....	6	7
172	Traumatism by fall.....	177	165
174	Traumatism by machines.....	31	27
175	Traumatism by other crushing (vehicles, railways, landslides, etc.),	199	197
176	Injuries by animals.....	8	3
177	Starvation.....		1
178	Excessive cold.....		6
179	Effects of heat.....	7	6
181	Electricity (lightning excepted).....		6
182	Homicide by firearms.....	18	13
183	Homicide by cutting or piercing instruments.....	5	5
184	Homicide by other means.....	13	13
185	Fractures (cause not specified).....	10	13
186	Other external violence.....	36	24
		872	829
XIV. ILL-DEFINED DISEASES.			
187	Ill-defined organic disease.....		
188	Sudden death.....	10	11
189	Cause of death not specified or ill-defined.....	15	24
		25	35
Totals.....		11,836	11,643

Ages.

	1913.	1912.
Under 2 days.....	375	388
2 days to 1 week.....	223	228
1 week to 1 month.....	283	259
1 to 3 months.....	319	398
3 to 6 months.....	383	405
6 to 9 months.....	290	295
9 months to 1 year.....	238	213
Total under 1 year.....	2,111	2,186
Total under 5 years.....	2,925	2,998
5 to 59 years.....	5,509	5,372
60 years and over.....	3,402	3,273
All ages.....	11,836	11,643

Sex.

	1913.	1912.
Males.....	6,326	6,082
Females.....	5,510	5,561

The death rate 16.09 per 1,000 population is the lowest rate Boston ever had. The same may be said of the rate for pulmonary tuberculosis, which was 14.47 per 10,000 population.

Summary of Reported Cases of Principal Communicable Diseases with Corresponding Deaths and Case Fatality.

	1913.			1912.		
	Cases.	Deaths.	Case Fatality.	Cases.	Deaths.	Case Fatality.
Diphtheria and croup.....	2,203	156	7.08	1,539	102	6.63
Scarlet fever.....	1,900	77	4.05	1,153	32	2.78
Typhoid fever.....	509	60	11.79	460	57	12.39
Measles.....	5,627	77	1.37	5,666	111	1.96
Tuberculosis.....	3,195	1,064	33.30	3,322	1,093	32.90
Whooping cough.....	1,368	97	7.09	1,145	75	6.55

Summary of Rates.

	MEAN ANNUAL RATE PER 1,000 PERSONS LIVING (EXCLUDING STILLBORNS).											Deaths of Children Under One Year to 1,000 Births (Excluding Stillborns).
	Births.	Deaths.	MORTALITY RATES.									
			Smallpox.	Measles.	Scarlet Fever.	Diphtheria and Croup.	Whooping Cough.	Typhoid Fever.	Diarrhea and Enteritis (Under Two Years).	Diarrhea and Enteritis (All Ages).	Pulmonary Tuberculosis.	
1881-85.....	29.71	24.71	.009	.201	.361	1.536	.214	.518	.....	.....	4.079	186.24
1886-90.....	29.88	23.43	.002	.117	.190	1.204	.154	.389	.....	.....	3.527	177.84
1891-95.....	31.74	23.54	.009	.039	.367	1.188	.118	.310	.....	.....	2.883	166.86
1896-1900.....	30.93	21.06	.002	.073	.203	.765	.130	.309	.....	.....	2.423	150.80
1901-05.....	27.52	18.75	.095	.124	.153	.387	.124	.224	.979	1.112	2.168	138.41
1906-10.....	27.81	17.88	.0003	.127	.104	.265	.113	.160	.910	1.033	1.757	133.40
1911.....	26.07	17.08	.001	.107	.107	.180	.156	.091	1.010	1.139	1.549	125.15
1912.....	26.23	16.17	.....	.154	.044	.142	.104	.079	.821	.911	1.518	115.73
1913 (birth figures provisional).	25.42	16.09105	.105	.212	.132	.082	.729	.837	1.447	112.90

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